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an existing transmission line. The segment terminates at its intersection with Segments F and M, on the east side of FM 1053 and on the north side of an existing transmission line.

Segment M

Segment M begins at its intersection with Segments F and L, on the east side of FM 1053 and on the north side of an existing transmission line. The segment angles southwest for approximately 6.10 miles, paralleling the northwest side of an existing transmission line, immediately crossing FM 1053, and crossing an abandoned railroad, Leon Creek, and State Highway (SH) 18. The segment terminates at its intersection with Segments N and R, on the west side of SH 18 and on the northwest side of an existing transmission line.

Segment N

Segment N begins at its intersection with Segments M and R, on the west side of SH 18 and on the northwest side of an existing transmission line. The segment proceeds north for approximately 0.67 mile, paralleling the west side of SH 18. The segment then turns west for approximately 5.93 miles, crossing an existing transmission line. The segment then angles northwest for approximately 1.40 miles, crossing Courtney Creek. The segment then angles west for approximately 2.05 miles. The segment then angles west-southwest for approximately 0.98 mile, and then angles west for approximately 7.15 miles, crossing FM 1776. The segment then angles northwest for approximately 0.21 mile. The segment then angles southwest for approximately 0.17 mile, and then angles west for approximately 0.39 mile. The segment then angles southwest for approximately 0.51 mile, crossing U.S. HWY 285 and an existing transmission line. The segment terminates at its intersection with Segments S and T, on the southwest side of an existing transmission line on the southwest side of U.S. HWY 285.

Segment O

Segment O begins at its intersection with Segments K, L and II, on the northwest side of an existing transmission line. The segment proceeds southwest for approximately 2.41 miles, paralleling the northwest side of an existing transmission line, and crossing an abandoned railroad. The segment then angles west for approximately 5.43 miles, crossing Comanche Creek. The segment terminates at its intersection with Segments X2 and Y2, on the east side of FM 1053.

Segment P

Segment P begins at its intersection with Segments R1 and Z2, on the west side of SH 18 and an existing transmission line. The segment proceeds west for approximately 1.53 miles. The segment then turns north for approximately 0.06 mile, and then turns west for approximately 1.90 miles. The segment then angles west-southwest for approximately 0.16 mile, and then angles west for approximately 0.40 mile. The segment then angles southwest for approximately 0.67 mile, crossing Leon Creek. The segment then angles southwest for approximately 0.14 mile, and then angles northwest for approximately 0.16 mile. The segment then angles west for approximately 0.96 mile, and then angles west-northwest for approximately 0.18 mile. The segment terminates at its intersection with Segments Q and U.

Segment Q

Segment Q begins at its intersection with Segments P and U. The segment proceeds west for approximately 3.60 miles, crossing U.S. HWY 285, and an existing transmission line. The segment then angles northwest for approximately 0.90 mile, paralleling the southwest side of an existing transmission line. The segment then angles west-southwest for approximately 0.12 mile, and then angles northwest for

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approximately 0.64 mile crossing Courtney Creek and FM 1776. The segment then angles northnorthwest for approximately 0.19 mile, and then angles northwest for approximately 2.28 miles, paralleling the southwest side of an existing transmission line and crossing an existing transmission line. The segment terminates at its intersection with Segments R, S, and W, on the southwest side of an existing transmission line and U.S. HWY 285 and north side of an existing transmission line.

Segment R

Segment R begins at its intersection with Segments M and N, on the west side of SH 18 and on the northwest side of an existing transmission line. The segment proceeds west-southwest for approximately 1.10 miles, paralleling the northwest side of an existing transmission line. The segment then angles northwest for approximately 0.23 mile, and then turns southwest for approximately 0.44 mile. The segment then angles west-southwest for approximately 2.00 miles, paralleling the northwest side of an existing transmission line, and crossing an existing transmission line. The segment then angles west for approximately 0.23 mile. The segment then angles west-southwest for approximately 3.60 miles, paralleling the northwest side of an existing transmission line. The segment then angles west for approximately 0.43 mile, and then angles southwest for approximately 0.25 mile. The segment then angles west-southwest for approximately 4.75 miles, paralleling the northwest side of an existing transmission line and crossing Courtney Creek, FM 1776, U.S. HWY 285, and an existing transmission line. The segment terminates at its intersection with Segments R, S, and W, on the southwest side of an existing transmission line and U.S. HWY 285 and north side of an existing transmission line.

Segment S

Segment S begins at its intersection with Segments Q, R, and W, on the southwest side of an existing transmission line and U.S. HWY 285 and north side of an existing transmission line. The segment proceeds northwest for approximately 7.30 miles, paralleling the southwest side of an existing transmission line. The segment terminates at its intersection with Segments N and T, on the southwest side of an existing transmission line on the south side of U.S. HWY 285.

Segment T

Segment T begins at its intersection with Segments N and S, on the southwest side of an existing transmission line on the south side of U.S. HWY 285. The segment proceeds southwest for approximately 1.26 miles. The segment then angles west for approximately 2.94 miles. The segment then turns south for approximately 3.90 miles, and then turns west for approximately 3.24 miles. The segment then angles south-southwest for approximately 0.69 mile, paralleling the southeast side of an existing transmission line. The segment then angles south for approximately 2.40 miles. The segment terminates at its intersection with Segments X and Y.

Segment U

Segment U begins at its intersection with Segments P and Q. The segment proceeds southwest for approximately 2.02 miles, crossing U.S. HWY 285. The segment then angles west for approximately 3.01 miles, crossing an existing transmission line, and Courtney Creek. The segment terminates at its intersection with Segments V and X1, on the east side of FM 1776.

Segment V

Segment V begins at its intersection with Segments U and X1, on the east side of FM 1776. The segment proceeds west for approximately 3.05 miles, immediately crossing FM 1776. The segment then turns

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north for approximately 0.98 mile, and then turns west for approximately 2.08 miles. The segment then angles southwest for approximately 0.12 mile, then angles west for approximately 0.13 mile, and then angles northwest for approximately 0.13 mile. The segment then angles west for approximately 1.66 miles, and then turns north for approximately 0.89 mile, crossing an existing transmission line. The segment terminates at its intersection with Segments W and X, on the northwest side of an existing transmission line.

Segment W

Segment W begins at its intersection with Segments Q, R, and S, on the southwest side of an existing transmission line and U.S. HWY 285 and north side of an existing transmission line. The segment proceeds west-southwest for approximately 5.07 miles, paralleling the northwest side of an existing transmission line. The segment terminates at its intersection with Segments V and X, on the northwest side of an existing transmission line.

Segment X

Segment X begins at its intersection with Segments V and W, on the northwest side of an existing transmission line. The segment proceeds southwest for approximately 6.57 miles, paralleling the northwest side of an existing transmission line. The segment then angles west for approximately 2.33 miles. The segment terminates at its intersection with Segments T and Y.

Segment Y

Segment Y begins at its intersection with Segments T and X. The segment proceeds south for approximately 0.70 mile. The segment then angles southwest for approximately 1.80 miles, paralleling the northwest side of an existing transmission line and crossing an existing transmission line. The segment then turns south for approximately 0.14 mile. The segment terminates at a point inside the Solstice Switch Station property, on the north side of Interstate Highway (IH) 10 in Pecos County (see Inset).

Segment Z

Segment Z begins at the existing Bakersfield Station, approximately 0.80 miles west of FM 1901 in Pecos County (see inset). The segment exits the southwest corner of the existing Bakersfield Station and proceeds south for approximately 0.07 mile. The segment then turns west for approximately 1.05 miles, and then turns south for approximately 2.02 miles. The segment terminates at its intersection with Segments A1 and B1.

Segment A1

Segment A1 begins at its intersection with Segments Z and B1. The segment proceeds west for approximately 4.10 miles, crossing FM 11. The segment then turns south for approximately 0.96 mile. The segment then turns west for approximately 1.22 miles. The segment then angles southwest for approximately 3.27 miles, paralleling the southeast side of an existing transmission line. The segment terminates at its intersection with Segments B1, C1, and D1, on the southeast side of an existing transmission line on the north side of IH 10.

Segment B1

Segment B1 begins at its intersection with Segments Z and A1. The segment proceeds south for approximately 1.65 miles, immediately crossing Tunas Creek, and crossing FM 11. The segment then angles southwest for approximately 1.21 miles. The segment then angles south-southwest for

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approximately 1.20 miles, and then angles west for approximately 4.32 miles, paralleling the north side of IH 10, and crossing Tunas Creek. The segment then angles northwest for approximately 0.28 mile, then angles southwest for approximately 0.20 mile, and then angles west for approximately 0.66 mile, paralleling the north side of IH 10. The segment terminates at its intersection with Segments A1, C1, and D1, on the southeast side of an existing transmission line on the north side of IH 10.

Segment C1 begins at its intersection with Segments A1, B1, and D1, on the southeast side of an existing transmission line on the north side of IH 10. The segment proceeds southwest for approximately 0.79 mile, paralleling the north side of IH 10 and immediately crossing an existing transmission line. The segment angles west for approximately 0.61 mile, then angles southwest for approximately 0.66 miles, paralleling the north side of IH 10. The segment then angles west for approximately 0.49 mile, then angles southwest for approximately 0.48 mile, and then angles west-southwest for approximately 1.79 miles, paralleling the north side of IH 10. The segment terminates at its intersection with Segments E1 and F1, on the north side of IH 10.

Segment D1

Segment D1 begins at its intersection with Segments A1, B1, and C1, on the southeast side of an existing transmission line on the north side of IH 10. The segment proceeds south-southwest for approximately 3.80 miles, paralleling the southwest side of two existing transmission lines, immediately crossing IH 10, and crossing an existing transmission line and Tunas Creek. The segment then angles southwest for approximately 1.50 miles, paralleling the southeast side of an existing transmission line and crossing an existing transmission line. The segment then angles south-southwest for approximately 3.06 miles, paralleling the southeast side of an existing transmission line. The segment then angles west for approximately 0.51 mile, paralleling the south side of an existing transmission line. The segment then turns south for approximately 3.08 miles, paralleling the east side of an existing transmission line, and immediately crossing an existing transmission line. The segment then turns west for approximately 1.01 miles. The segment then angles northwest for approximately 0.27 mile, then angles west for approximately 0.78 mile, and then angles west-southwest for approximately 1.06 miles, crossing FM 2023. The segment then angles west-southwest for approximately 0.74 mile, and then angles northwest for approximately 0.62 mile. The segment then angles west for approximately 0.17 mile. The segment then angles northwest for approximately 0.41 mile, and then angles west-southwest for approximately 1.82 miles, and then angles north for approximately 0.07 mile. The segment terminates at its intersection with Segments C3 and L1.

Segment E1

Segment E1 begins at its intersection with Segments C1 and F1, on the north side of IH 10. The segment proceeds south for approximately 1.34 miles, immediately crossing IH 10 and crossing Tunas Creek. The segment then turns west for approximately 2.00 miles, then angles southwest for approximately 0.09 mile, and then angles west for approximately 1.10 miles. The segment then angles southwest for approximately 3.28 miles, crossing FM 2023. The segment then angles south for approximately 0.72 mile. The segment terminates at its intersection with Segments A3 and C3.

Segment F1

Segment F1 begins at its intersection with Segments C1 and E1, on the north side of IH 10. The segment proceeds westerly for approximately 4.49 miles, paralleling the north side of IH 10, and crossing Tunas Creek. The segment then angles northwest for approximately 0.30 mile, and then angles west for

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approximately 0.29 mile. The segment then angles northwesterly for approximately 3.37 miles, paralleling the north side of IH 10 and crossing U.S. HWY 67. The segment terminates at its intersection with Segments G1 and H1, on the northwest side of U.S. HWY 67.

Segment G1

Segment G1 begins at its intersection with Segments G, H and I, on the southeast side of U.S. HWY 67. The segment proceeds southwest for approximately 6.15 miles, paralleling the southeast side of U.S. HWY 67. The segment then turns northwest for approximately 0.07 mile, crossing U.S. HWY 67. The segment then turns southwest for approximately 6.80 miles, paralleling the northwest side of U.S. HWY 67. The segment terminates at its intersection with Segments F1 and H1, on the northwest side of U.S. HWY 67.

Segment H1

Segment H1 begins at its intersection with Segments F1 and G1, on the northwest side of U.S. HWY 67. The segment proceeds southwest for approximately 0.43 mile, paralleling the northwest side of U.S. HWY 67. The segment then angles west-northwest for approximately 3.63 miles, paralleling the north side of IH 10 and crossing an existing transmission line. The segment terminates at its intersection with Segments I1 and J1, on the north side of IH 10.

Segment I1

Segment I1 begins at its intersection with Segments H1 and J1, on the north side of IH 10. The segment proceeds north for approximately 1.44 miles. The segment then angles northeast for approximately 1.92 miles. The segment then angles north-northwest for approximately 4.22 miles. The segment then angles northwest for approximately 0.39 mile, crossing an existing transmission line, an existing railroad, and an existing transmission line. The segment terminates at its intersection with Segments K, L, and O, on the northwest side of an existing transmission line.

Segment J1

Segment J1 begins at its intersection with Segments H1 and I1, on the north side of IH 10. The segment proceeds south for approximately 0.62 mile, crossing IH 10. The segment then angles southwest for approximately 0.24 mile, and then angles south for approximately 3.42 miles. The segment terminates at its intersection with Segments M1 and D3.

Segment K1

Segment K1 begins at its intersection with Segments A3 and D3. The segment proceeds south for approximately 0.28 mile, and then angles southeast for approximately 0.21 mile. The segment then turns southwest for approximately 0.26 mile. The segment then angles south for approximately 4.34 miles. The segment terminates at its intersection with Segments L1 and N1.

Segment L1

Segment L1 begins at its intersection with Segments D1 and C3. The segment proceeds west for approximately 1.28 miles, crossing an existing transmission line. The segment then angles northwest for approximately 0.23 mile, and then turns southwest for approximately 0.14 mile. The segment then angles west for approximately 4.29 miles. The segment terminates at its intersection with Segments K1 and N1.

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Segment M1

Segment M1 begins at its intersection with Segments J1 and D3. The segment proceeds west for approximately 0.80 mile. The segment then angles southwest for approximately 0.20 mile. The segment then turns northwest for approximately 0.40 mile, and then angles west for approximately 9.54 miles, crossing an existing transmission line, U.S. HWY 285, and U.S. HWY 385. The segment terminates at its intersection with Segments O1 and P1, on the west side of U.S. HWY 385.

Segment N1

Segment N1 begins at its intersection with Segments L1 and K1. The segment proceeds south for approximately 0.13 mile, then west for approximately 3.30 miles, then southwest for approximately 0.04 mile, crossing U.S. HWY 285 and an existing transmission line. The segment then proceeds northwest for approximately 0.13 mile, then west for approximately 7.43 miles. The segment terminates at its intersection with Segments O1 and A2.

Segment O1

Segment O1 begins at its intersection with Segments N1 and A2. The segment proceeds north for approximately 1.57 miles. The segment then proceeds west-northwest for approximately 0.05 mile, crossing U.S. HWY 385. The segment then continues north for approximately 4.42 miles, paralleling the west side of U.S. HWY 385. The segment terminates at its intersection with Segments M1 and P1, on the west side of U.S. HWY 385.

Segment P1

Segment P1 begins at its intersection with Segments M1 and O1, on the west side of U.S. HWY 385. The segment proceeds west for approximately 2.83 miles, and then turns north for approximately 1.01 miles. The segment then turns west for approximately 2.51 miles, crossing an existing railroad and an existing transmission line. The segment then turns north for approximately 2.23 miles. The segment then turns west for approximately 0.10 mile, and then turns north for approximately 1.26 miles. The segment terminates at its intersection with Segments Q1 and T1, on the south side of IH 10 and on the east side of FM 2037.

Segment Q1

Segment Q1 begins at its intersection with Segments P1 and T1, on the south side of IH 10 and on the east side of FM 2037. The segment proceeds north for approximately 0.12 mile, crossing IH 10. The segment then angles west-northwest for approximately 1.12 miles, crossing Leon Creek and an existing transmission line. The segment terminates at its intersection with Segments R1 and S1, on the northwest side of an existing transmission line on the north side of IH 10.

Segment R1

Segment R1 begins at its intersection with Segments Z2 and P, on the west side of SH 18. The segment proceeds south for approximately 0.94 mile, paralleling the west side of an existing transmission line. The segment then turns west for approximately 1.95 miles, paralleling the north side of an existing transmission line. The segment then angles south-southwest for approximately 0.90 mile, paralleling the northwest side of an existing transmission line. The segment then angles west-southwest for approximately 0.54 mile, paralleling the northwest side of an existing transmission line, and then angles south for approximately 0.68 mile, paralleling the west side of an existing transmission line. The segment then angles southwest for approximately 1.38 miles, paralleling the northwest side of an existing transmission line. The segment then angles west-southwest for approximately 0.37 mile, paralleling the

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northwest side of an existing transmission line, and then angles southwest for approximately 0.26 mile, crossing U.S. HWY 285 and an existing transmission line. The segment then angles west for approximately 1.09 miles, paralleling the north side of an existing transmission line. The segment then angles southwest for approximately 2.33 miles, paralleling the northwest side of an existing transmission line and crossing Leon Creek. The segment terminates at its intersection with Segments Q1 and S1, on the northwest side of an existing transmission line on the north side of IH 10.

Segment S1

Segment S1 begins at its intersection with Segments Q1 and R1, on the northwest side of an existing transmission line on the north side of IH 10. The segment proceeds west for approximately 2.73 miles, paralleling the north side of an existing transmission line. The segment terminates at its intersection with Segments V1 and W1, on the north side of an existing transmission line on the north side of IH 10 (see Inset).

Segment T1

Segment T1 begins at its intersection with Segments P1 and Q1, on the south side of IH 10 and on the east side of FM 2037. The segment proceeds west for approximately 0.79 mile, paralleling the south side of IH 10 and crossing FM 2037 and Leon Creek. The segment then angles southwest for approximately 1.06 miles, and then angles west-northwest for approximately 0.75 mile. The segment then angles west for approximately 1.94 miles. The segment terminates at its intersection with Segments U1 and C2, on the east side of U.S. HWY 67 (see Inset).

Segment U1 (see Inset)

Segment U1 begins at its intersection with Segments V1 and Y1, on the south side of IH 10 and on the east side of U.S. HWY 67. The segment proceeds southwest for approximately 0.39 mile, paralleling the east side of U.S. HWY 67. The segment terminates at its intersection with Segments T1 and C2, on the east side of U.S. HWY 67.

Segment V1 (see Inset)

Segment V1 begins at its intersection with Segments S1 and W1, on the north side of an existing transmission line on the north side of IH 10. The segment proceeds south for approximately 0.27 mile, immediately crossing an existing transmission line and crossing IH 10. The segment then angles west-southwest for approximately 0.51 mile. The segment terminates at its intersection with Segments U1 and Y1, on the south side of IH 10 and on the east side of U.S. HWY 67.

Segment W1 (see Inset)

Segment W1 begins at its intersection with Segments S1 and V1, on the north side of an existing transmission line on the north side of IH 10. The segment proceeds west for approximately 0.91 mile, paralleling the north side of an existing transmission line and crossing FM 1776. The segment then angles northwest for approximately 0.27 mile. The segment terminates at its intersection with Segments X1 and B3.

Segment X1

Segment X1 begins at its intersection with Segments U and V, on the east side of FM 1776. The segment proceeds south for approximately 1.73 miles, paralleling the east side of FM 1776 and then crossing FM 1776. The segment then continues south for approximately 2.81 miles. The segment terminates at its intersection with Segments W1 and B3 (see Inset).

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Segment Y1

Segment Y1 begins at its intersection with Segments U1 and V1 (see Inset), on the south side of IH 10 and on the east side of U.S. HWY 67. The segment proceeds northwest for approximately 0.39 mile, crossing U.S. HWY 67. The segment then angles west for approximately 1.60 miles, paralleling the south side of IH 10. The segment then angles west-southwest for approximately 0.37 mile, and then angles northwest for approximately 0.42 mile. The segment then angles west for approximately 1.05 miles, paralleling the south side of IH 10. The segment terminates at its intersection with Segments Z1 and F2, on the south side of IH 10.

Segment Z1 (see Inset)

Segment Z1 begins at its intersection with Segments Y1 and F2, on the south side of IH 10. The segment proceeds west for approximately 0.26 mile, paralleling the south side of IH 10. The segment then turns north for approximately 0.21 mile, crossing IH 10 and an existing transmission line. The segment terminates at its intersection with Segments G2 and B3, on the north side of an existing transmission line on the north side of IH 10.

Segment A2

Segment A2 begins at its intersection with Segments N1 and O1. The segment proceeds west for approximately 7.45 miles, crossing U.S. HWY 385. The segment then angles northwest for approximately 0.54 mile, and then angles north for approximately 1.83 miles. The segment then turns west for approximately 1.33 miles, and then angles southwest for approximately 0.20 mile, paralleling the southeast side of an existing railroad. The segment then turns northwest for approximately 0.17 mile, crossing an existing railroad and an existing transmission line. The segment then angles west for approximately 1.48 miles. The segment then turns north for approximately 4.55 miles, and then turns west for approximately 2.08 miles. The segment terminates at its intersection with Segments B2 and S2, on the east side of U.S. HWY 67.

Segment B2

Segment B2 begins at its intersection with Segments C2 and D2 (see Inset), on the east side of U.S. HWY 67. The segment proceeds southwest for approximately 4.00 miles, paralleling the east side of U.S. HWY 67. The segment terminates at its intersection with Segments A2 and S2, on the east side of U.S. HWY 67.

Segment C2 (see Inset)

Segment C2 begins at its intersection with Segments T1 and U1, on the east side of U.S. HWY 67. The segment proceeds southwest for approximately 0.93 mile, paralleling the east side of U.S. HWY 67. The segment terminates at its intersection with Segments B2 and D2, on the east side of U.S. HWY 67.

Segment D2 (see Inset)

Segment D2 begins at its intersection with Segments B2 and C2, on the east side of U.S. HWY 67. The segment proceeds west for approximately 2.94 miles, immediately crossing U.S. HWY 67. The segment terminates at its intersection with Segments E2 and K2.

Segment E2 (see Inset)

Segment E2 begins at its intersection with Segments D2 and K2. The segment proceeds north for approximately 1.49 miles. The segment terminates at its intersection with Segments F2 and H2.

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Segment F2 (see Inset)

Segment F2 begins at its intersection with Segments E2 and H2. The segment proceeds north for approximately 0.42 miles. The segment terminates at its intersection with Segments Y1 and Z1, on the south side of IH 10.

Segment G2 (see Inset)

Segment G2 begins at its intersection with Segments Z1 and B3, on the north side of an existing transmission line on the north side of IH 10. The segment proceeds west-northwest for approximately 0.14 mile, paralleling the north side of an existing transmission line. The segment then angles west for approximately 0.44 mile, paralleling the north side on an existing transmission line. The segment then angles northwest for approximately 0.33 mile, paralleling the north side on an existing transmission line. The segment then turns southwest for approximately 0.12 mile, paralleling the north side on an existing transmission line. The segment then angles west-northwest for approximately 0.90 mile, paralleling the north side on an existing transmission line. The segment terminates at its intersection with Segments I2 and J2, on the north side of an existing transmission line on the north side of IH 10.

Segment H2 (see Inset)

Segment H2 begins at its intersection with Segments E2 and F2. The segment proceeds west for approximately 0.80 mile, and then angles northwest for approximately 0.52 mile. The segment then angles west-northwest for approximately 1.12 miles. The segment terminates at its intersection with Segments L2, I2, and M2, on the south side of IH 10.

Segment I2 (see Inset)

Segment I2 begins at its intersection with Segments H2, L2, and M2, on the south side of IH 10. The segment proceeds north for approximately 0.24 mile, crossing IH 10 and an existing transmission line. The segment terminates at its intersection with Segments G2 and J2, on the north side of an existing transmission line on the north side of IH 10.

Segment J2

Segment J2 begins at its intersection with Segments G2 and I2, on the north side of an existing transmission line on the north side of IH 10 (see Inset). The segment proceeds northwest for approximately 0.24 mile, paralleling the north side of an existing transmission line. The segment then angles and proceeds westerly for approximately 12.3 miles, paralleling the north side of an existing transmission line and crossing an existing transmission line. The segment terminates at a point inside the Solstice Switch Station property, on the north side of IH 10 in Pecos County (see Inset).

Segment K2 (see Inset)

Segment K2 begins at its intersection with Segments D2 and E2. The segment proceeds west for approximately 2.05 miles. The segment terminates at its intersection with Segments L2 and N2.

Segment L2 (see Inset)

Segment L2 begins at is intersection with Segments K2 and N2. The segment proceeds north for approximately 2.30 miles. The segment terminates at its intersection with Segments H2, I2 and M2, on the south side of IH 10.

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Segment M2

Segment M2 begins at its intersection with Segments H2, I2, and L2, on the south side of IH 10 (see Inset). The segment proceeds west-northwest for approximately 9.14 miles, paralleling the south side of IH 10. The segment terminates with its intersection with Segments P2 and O2, on the south side of IH 10.

Segment N2

Segment N2 begins at its intersection with Segments K2 and L2 (see Inset). The segment proceeds west for approximately 5.98 miles. The segment terminates at its intersection with Segments O2 and T2.

Segment O2

Segment O2 begins at its intersection with Segments N2 and T2. The segment proceeds north for approximately 0.97 mile, and then turns west for approximately 3.16 miles. The segment terminates at its intersection with Segments P2 and V2.

Segment P2

Segment P2 begins at its intersection with Segments O2 and V2. The segment proceeds north for approximately 2.75 miles. The segment terminates at its intersection with Segments M2 and Q2, on the south side of IH 10.

Segment Q2

Segment Q2 begins at its intersection with Segments M2 and P2, on the south side of IH 10. The segment proceeds west-northwest for approximately 0.56 mile. The segment then angles northwest for approximately 0.58 mile, and then angles west-northwest for approximately 2.30 miles, paralleling the south side of IH 10. The segment terminates at its intersection with Segments R2 and W2, on the south side of IH 10 (see Inset).

Segment R2 (see Inset)

Segment R2 begins at its intersection with Segments Q2 and W2, on the south side of IH 10. The segment proceeds north for approximately 0.19 mile, crossing IH 10 and two existing transmission lines. The segment terminates at a point inside the Solstice Switch Station property, on the north side of IH 10 in Pecos County.

Segment S2

Segment S2 begins at its intersection with Segments A2 and B2, on the east side of U.S. HWY 67. The segment proceeds west for approximately 8.30 miles, immediately crossing U.S. HWY 67. The segment terminates at its intersection with Segments T2 and U2.

Segment T2

Segment T2 begins at its intersection with Segments S2 and U2. The segment proceeds north for approximately 3.00 miles. The segment terminates at its intersection with Segments N2 and O2.

Segment U2

Segment U2 begins at its intersection with Segments S2 and T2. The segment proceeds west for approximately 3.70 miles, and then angles northwest for approximately 0.19 mile. The segment then turns southwest for approximately 0.10 mile, and then angles west for approximately 3.18 miles. The segment then turns north for approximately 4.07 miles, paralleling the east side of an existing transmission line.

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The segment terminates at its intersection with Segments V2 and W2, on the east side of an existing transmission line.

Segment V2

Segment V2 begins at its intersection with Segments O2 and P2. The segment proceeds west for approximately 3.84 miles. The segment terminates at its intersection with Segments U2 and W2, on the east side of an existing transmission line.

Segment W2

Segment W2 begins at its intersection with Segments U2 and V2, on the east side of on existing transmission line. The segment proceeds north for approximately 3.48 miles, paralleling the east side of an existing transmission line. The segment then turns east for approximately 0.34 mile, paralleling the south side of IH 10 (see Inset). The segment terminates at its intersection with Segments Q2 and R2, on the south side of IH 10.

Segment X2

Segment X2 begins at its intersection with Segments O and Y2, on the east side of FM 1053. The segment proceeds west for approximately 2.39 miles, immediately crossing FM 1053. The segment terminates at its intersection with Segments Y2 and Z2.

Segment Y2

Segment Y2 begins at its intersection with Segments O and X2, on the east side of FM 1053. The segment proceeds southwest for approximately 1.10 miles, paralleling the east side of FM 1053. The segment then turns northwest for approximately 0.11 mile, crossing FM 1053. The segment then angles west for approximately 0.53 mile, then angles northwest for approximately 1.53 miles. The segment terminates at its intersection with Segments X2 and Z2.

Segment Z2

Segment Z2 begins at its intersection with Segments X2 and Y2. The segment proceeds west for approximately 0.79 mile, crossing an existing transmission line and SH 18. The segment terminates at its intersection with Segments P and R1, on the west side of SH 18.

Segment A3

Segment A3 begins at its intersection with Segments E1 and C3. The segment proceeds west for approximately 5.92 miles, crossing an existing transmission line. The segment terminates at its intersection with Segments K1 and D3.

Segment B3 (Inset)

Segment B3 begins at its intersection with Segments W1 and X1. The segment proceeds southwest for approximately 0.26 mile, and then angles west for approximately 0.68 mile, paralleling the north side of an existing transmission line. The segment then angles west-northwest for approximately 0.82 mile, paralleling the north side of an existing transmission line. The segment then angles west for approximately 0.80 mile, paralleling the north side of an existing transmission line. The segment then angles west-northwest for approximately 0.25 mile, and then angles west for approximately 0.38 mile. The segment then angles northwest for approximately 0.16 mile, paralleling the north side of an existing transmission line. The segment terminates at its intersection with Segments Z1 and G2, on the north side of an existing transmission line on the north side of IH 10.

Description of the Primary Alternative Routes

Segment C3

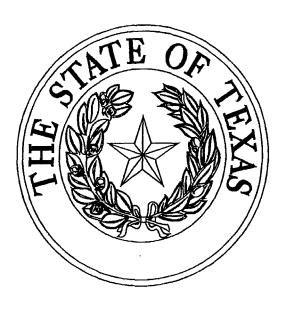
Segment C3 begins at its intersection with Segments E1 and A3. The segment proceeds south for approximately 0.45 mile, then angles southeast for approximately 0.12 mile, and then turns southwest for approximately 0.14 mile. The segment then angles south for approximately 1.33 miles, and then angles southwest for approximately 0.24 mile. The segment then angles south for approximately 0.24 mile, then angles southeast for approximately 0.22 mile, and then angles south for approximately 2.39 miles. The segment terminates at its intersection with Segments D1 and L1.

Segment D3

Segment D3 begins at its intersection with Segments K1 and A3. The segment proceeds north for approximately 0.65 mile. The segment terminates at its intersection with Segments J1 and M1.

Landowners and Transmission Line Cases at the PUC

Public Utility Commission of Texas



1701 N. Congress Avenue P.O. Box 13326 Austin, Texas 78711-3326 (512) 936-7261 www.puc.state.tx.us

Effective: June 1, 2011

Purpose of This Brochure

This brochure is intended to provide landowners with information about proposed new transmission lines and the Public Utility Commission's ("PUC" or "Commission") process for evaluating these proposals. At the end of the brochure is a list of sources for additional information.

The following topics are covered in this brochure:

- How the PUC evaluates whether a new transmission line should be built,
- ► How you can participate in the PUC's evaluation of a line, and
- How utilities acquire the right to build a transmission line on private property.

You are receiving the enclosed formal notice because one or more of the routes for a proposed transmission line may require an easement or other property interest across your property, or the centerline of the proposed project may come within 300 feet of a house or other habitable structure on your property. This distance is expanded to 500 feet if the proposed line is greater than 230 kilovolts (kV). For this reason, your property is considered directly affected land. This brochure is being included as part of the formal notice process.

If you have questions about the proposed routes for a transmission line, you may contact the applicant. The applicant also has a more detailed map of the proposed routes for the transmission line and nearby habitable structures. The applicant may help you understand the routing of the project and the application approval process in a transmission line case but cannot provide legal advice or represent you. The applicant cannot predict which route may or may not be approved by the PUC. The PUC decides which route to use for the transmission line, and the applicant is not obligated to keep you informed of the PUC's proceedings. The only way to fully participate in the PUC's decision on where to locate the transmission line is to intervene, which is discussed below.

The PUC is sensitive to the impact that transmission lines have on private property. At the same time, transmission lines deliver electricity to millions of homes and businesses in Texas, and new lines are sometimes needed so that customers can obtain reliable, economical power.

The PUC's job is to decide whether a transmission line application should be approved and on which route the line should be constructed. The PUC values input from landowners and encourages you to participate in this process by intervening in the docket.

PUC Transmission Line Case

Texas law provides that most utilities must file an application with the PUC to obtain or amend a Certificate of Convenience and Necessity (CCN) in order to build a new transmission line in Texas. The law requires the PUC to consider a number of factors in deciding whether to approve a proposed new transmission line.

The PUC may approve an application to obtain or amend a CCN for a transmission line after considering the following factors:

- Adequacy of existing service;
- Need for additional service;
- The effect of approving the application on the applicant and any utility serving the proximate area;
- Whether the route utilizes existing compatible rights-of-way, including the use of vacant positions on existing multiple-circuit transmission lines;
- Whether the route parallels existing compatible rights-of-way;
- Whether the route parallels property lines or other natural or cultural features;
- Whether the route conforms with the policy of prudent avoidance (which is defined as the limiting of exposures to electric and magnetic fields that can be avoided with reasonable investments of money and effort); and
- Other factors such as community values, recreational and park areas, historical and aesthetic values, environmental integrity, and the probable improvement of service or lowering of cost to consumers in the area.

If the PUC decides an application should be approved, it will grant to the applicant a CCN or CCN amendment to allow for the construction and operation of the new transmission line.

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Application to Obtain or Amend a CCN:

An application to obtain or amend a CCN describes the proposed line and includes a statement from the applicant describing the need for the line and the impact of building it. In addition to the routes proposed by the applicant in its application, the possibility exists that additional routes may be developed, during the course of a CCN case, that could affect property in a different manner than the original routes proposed by the applicant.

The PUC conducts a case to evaluate the impact of the proposed line and to decide which route should be approved. Landowners who would be affected by a new line can:

- informally file a protest, or
- formally participate in the case as an intervenor.

Filing a Protest (informal comments):

If you do not wish to intervene and participate in a hearing in a CCN case, you may file comments. An individual or business or a group who files only comments for or against any aspect of the transmission line application is considered a "protestor."

Protestors make a written or verbal statement in support of or in opposition to the utility's application and give information to the PUC staff that they believe supports their position.

Protestors are not parties to the case, however, and do not have the right to:

- Obtain facts about the case from other parties;
- Receive notice of a hearing, or copies of testimony and other documents that are filed in the case;
- Receive notice of the time and place for negotiations;
- File testimony and/or cross-examine witnesses;
- Submit evidence at the hearing; or
- Appeal P.U.C. decisions to the courts.

If you want to make comments, you may either send written comments stating your position, or you may make a statement on the first day of the hearing. If you have not intervened, however, you will not be able to participate as a party in the hearing. Only parties may submit evidence and the PUC must base its decision on the evidence.

Intervening in a Case:

To become an intervenor, you must file a statement with the PUC, no later than the date specified in the notice letter sent to you with this brochure, requesting intervenor status (also referred to as a party). This statement should describe how the proposed transmission line would affect your property. Typically, intervention is granted only to directly affected landowners. However, any landowner may request to intervene and obtain a ruling on his or her specific fact situation and concerns. A sample form for intervention and the filing address are attached to this brochure, and may be used to make your filing. A letter requesting intervention may also be used in lieu of the sample form for intervention.

If you decide to intervene and become a party in a case, you will be required to follow certain procedural rules:

- You are required to timely respond to requests for information from other parties who seek information.
- If you file testimony, you must appear at a hearing to be cross-examined.
- If you file testimony or any letters or other documents in the case, you must send copies of the documents to every party in the case and you must file multiple copies with the PUC.
- If you intend to participate at the hearing and you do not file testimony, you must at least file a statement of position, which is a document that describes your position in the case.
- Failure to comply with these procedural rules may serve as grounds for you to be dismissed as an intervenor in the
 case.
- If you wish to participate in the proceedings it is very important to attend any prehearing conferences.

Intervenors may represent themselves or have an attorney to represent them in a CCN case. If you intervene in a case, you may want an attorney to help you understand the PUC's procedures and the laws and rules that the PUC applies in deciding whether to approve a transmission line. The PUC encourages landowners to intervene and become parties.

Stages of a CCN Case:

If there are persons who intervene in the case and oppose the approval of the line, the PUC may refer the case to an administrative law judge (ALJ) at the State Office of Administrative Hearings (SOAH) to conduct a hearing, or the Commission may elect to conduct a hearing itself. The hearing is a formal proceeding, much like a trial, in which testimony is presented. In the event the case is referred to SOAH, the ALJ makes a recommendation to the PUC on whether the application should be approved and where and how the line should be routed.

There are several stages of a CCN case:

- The ALJ holds a prehearing conference (usually in Austin) to set a schedule for the case.
- Parties to the case have the opportunity to conduct discovery; that is, obtain facts about the case from other parties.
- A hearing is held (usually in Austin), and parties have an opportunity to cross-examine the witnesses.
- Parties file written testimony before the date of the hearing. Parties that do not file written testimony or statements of position by the deadline established by the ALJ may not be allowed to participate in the hearing on the merits.
- Parties may file written briefs concerning the evidence presented at the hearing, but are not required to do so.
- In deciding where to locate the transmission line and other issues presented by the application, the ALJ and Commission rely on factual information submitted as evidence at the hearing by the parties in the case. In order to submit factual information as evidence (other than through cross-examination of other parties' witnesses), a party must have intervened in the docket and filed written testimony on or before the deadline set by the ALJ.
- The ALJ makes a recommendation, called a **proposal for decision**, to the Commission regarding the case. Parties who disagree with the ALJ's recommendation may file exceptions.
- The Commissioners discuss the case and decide whether to approve the application. The Commission may approve the ALJ's recommendation, approve it with specified changes, send the case back to the ALJ for further consideration, or deny the application. The written decision rendered by the Commission is called a final order. Parties who believe that the Commission's decision is in error may file motions for rehearing, asking the Commission to reconsider the decision.
- After the Commission rule on the motion for rehearing, parties have the right to appeal the decision to district court in Travis County.

Right to Use Private Property

The Commission is responsible for deciding whether to approve a CCN application for a proposed transmission line. If a transmission line route is approved that impacts your property, the electric utility must obtain the right from you to enter your property and to build, operate, and maintain the transmission line. This right is typically called an easement.

Utilities may buy easements through a negotiated agreement, but they also have the power of eminent domain (condemnation) under Texas law. Local courts, not the PUC, decide issues concerning easements for rights-of-way. The PUC does not determine the value of property.

The PUC final order in a transmission case normally requires a utility to take certain steps to minimize the impact of the new transmission line on landowners' property and on the environment. For example, the order normally requires steps to minimize the possibility of erosion during construction and maintenance activities.

HOW TO OBTAIN MORE INFORMATION

The PUC's online filings interchange on the PUC website provides free access to documents that are filed with the Commission in Central Records. The docket number, also called a control number on the PUC website, of a case is a key piece of information used in locating documents in the case. You may access the Interchange by visiting the PUC's website home page at www.puc.state.tx.us and navigate the website as follows:

- Select "Filings."
- Select "Filings Search."
- Select "Filings Search."
- Enter 5-digit Control (Docket) Number. No other information is necessary.
- Select "Search." All of the filings in the docket will appear in order of date filed.
- Scroll down to select desired filing.
- Click on a blue "Item" number at left.
- Click on a "Download" icon at left.

Documents may also be purchased from and filed in Central Records. For more information on how to purchase or file documents, call Central Records at the PUC at 512-936-7180.

PUC Substantive Rule 25.101, Certification Criteria, addresses transmission line CCNs and is available on the PUC's website, or you may obtain copies of PUC rules from Central Records.

Always include the docket number on all filings with the PUC. You can find the docket number on the enclosed formal notice. Send documents to the PUC at the following address.

Public Utility Commission of Texas Central Records Attn: Filing Clerk 1701 N. Congress Avenue P.O. Box 13326 Austin, TX 78711-3326

The information contained within this brochure is not intended to provide a comprehensive guide to landowner rights and responsibilities in transmission line cases at the PUC. This brochure should neither be regarded as legal advice nor should it be a substitute for the PUC's rules. However, if you have questions about the process in transmission line cases, you may call the PUC's Legal Division at 512-936-7261. The PUC's Legal Division may help you understand the process in a transmission line case but cannot provide legal advice or represent you in a case. You may choose to hire an attorney to decide whether to intervene in a transmission line case, and an attorney may represent you if you choose to intervene.

Communicating with Decision-Makers

Do not contact the ALJ or the Commissioners by telephone or email. They are not allowed to discuss pending cases with you. They may make their recommendations and decisions only by relying on the evidence, written pleadings, and arguments that are presented in the case.

Request to Intervene in PUC Docket No. _____

	ubmitted by the person requesting to intervene in this proceeding. This ill parties in this docket. If you DO NOT want to be an intervenor, but emplete the "Comments" page.
Mail this completed form and 10 copie	es to:
Public Utility Commission of Texas Central Records Attn: Filing Clerk 1701 N. Congress Ave. P.O. Box 13326 Austin, TX 78711-3326	
First Name:	Last Name:
Phone Number:	Fax Number:
Address, City, State:	
I am requesting to intervene in this p I am a party to the case;	proceeding. As an INTERVENOR, I understand the following:
	overy requests from other parties in the case;
If I file testimony, I may be cross-e	
*	I will have to provide a copy of that document to every other party in the
■ I acknowledge that I am bound by and the State Office of Administrat	the Procedural Rules of the Public Utility Commission of Texas (PUC) ive Hearings (SOAH).
Please check one of the following:	
I own property with a habitable st transmission line.	tructure located near one or more of the utility's proposed routes for a
One or more of the utility's propose	ed routes would cross my property.
Other. Please describe and provide	comments. You may attach a separate page, if necessary.
Signature of person requesting interv	rention:

Comments in D	ocket No
Comments in D	ocket No.
	se complete this form. Although public comments are not and its staff of the public concerns and identify issues to be its proceedings.
Mail this completed form and 10 copies to:	
Public Utility Commission of Texas Central Records Attn: Filing Clerk 1701 N. Congress Ave. P.O. Box 13326 Austin, TX 78711-3326	
First Name:	Last Name:
Phone Number:	Fax Number:
Address, City, State:	
■ I am NOT a party to this case;	ding. As a PROTESTOR, I understand the following:
My comments are not considered evidence in the	
I have no further obligation to participate in the	proceeding.
Please check one of the following:	
I own property with a habitable structure loca transmission line.	ted near one or more of the utility's proposed routes for a
One or more of the utility's proposed routes wo	uld cross my property.
Other. Please describe and provide comments. Y	You may attach a separate page, if necessary.

Signature of person submitting comments:

______Date: ______

Bakersfield to Solstice 345-kV Transmission Line Project Utilities

Organization	Formal Title	Prefix	Contact	Formal	Address 1	City	State	Zip
Rio Grande Electric Co-Op	CEO	Mr.	Roger Andrade ·	Mr. Andrade	P.O. Box 1509	Bracketville	TX	78832
Texas New Mexico Power Co	President	Mr.	Neal Walker	Mr. Walker	577 N Garden Ridge Blvd.	Lewisville	TX	75067
Garland Power & Light	General Manager & CEO	Mr.	Jeff Janke	Mr. Janke	217 N. 5th St.	Garland	TX	75040
AEP Texas Inc.	President & COO	Ms.	Judith Talavera	Ms. Talavera	539 North Carancahua	Corpus Christi	TX	78401
Southwest Texas Electric Cooperative	General Manager	Mr.	William Whitten	Mr. Whitten	P.O. Box 677	El Dorado	TX	76936
South Texas Electric Cooperative	General Manager	Mr.	Mike Kezar	Mr. Kezar	P.O. Box 119	Nursery	TX	77976
Oncor	CEO	Mr.	Thomas Yamin	Mr. Yamin	1616 Woodall Rogers Fwy, 6B - 005	Dallas	TX	75202
OnPeak Power	Vice President	Mr.	Jon Robertson	Mr. Robertso	2028 E. Ben White Blvd. Ste 240-8833	Austin	TX	78741
OnPeak Power	Vice President	Mr.	Ingmar Sterzing	Mr. Sterzing	2028 E. Ben White Blvd. Ste 240-8833	Austin	TX	78741

Bakersfield to Solstice 345-kV Transmission Line Project Public Officials

Organization	Formal Title	Prefix	Contact	Formal	Address 1	City	State	Zip
Pecos County	County Judge	The Honorable	Joe Shuster	Judge Shuster	103 W. Callaghan	Fort Stockton	TX	79735
Pecos County	Commissioner Precinct 1	The Honorable	Tom Chapman -	Commissioner Chapman	P.O. Box 1624	Fort Stockton	TX	79735
Pecos County	Commissioner Precinct 2	The Honorable	Lupe Dominguez	Commissioner Dominguez	P.O. Box 220	Fort Stockton	TX	79735
Pecos County	Commissioner Precinct 3	The Honorable	Mickey Jack Perry	Commissioner Perry	P.O. Box 456	Iraan	TX	79744
Pecos County	Commissioner Precinct 4	The Honorable	Santiago Cantu, Jr.	Commissioner Cantu	P.O. Box 10	Fort Stockton	TX	79735
Pecos County Chamber of Commerce	President	Mr.	Dwayne	Bonham	1000 Railroad Avenue	Fort Stockton	TX	79735
Pecos County Chamber of Commerce	Executive Vice President	Ms.	Arna McCorkle	Ms. Corkle	1000 Railroad Avenue	Fort Stockton	TX	79735
City of Fort Stockton	Mayor	The Honorable	Chris Alexander	Mayor Alexander	121 W. 2nd Street	Fort Stockton	TX	79735
City of Fort Stockton	City Councilwoman	The Honorable	Pam Palileo	Council Member Palileo	121 W. 2nd Street	Fort Stockton	TX	79735
City of Fort Stockton	City Councilman	The Honorable	Ruben Falcon	Council Member Falcon	121 W. 2nd Street	Fort Stockton	TX	79735
City of Fart Stockton	City Councilman	The Honorable	Dino Ramirez	Council Member Ramirez	121 W. 2nd Street	Fort Stockton	TX	79735
City of Fort Stockton	City Councilman	The Honorable	Mike Ureta	Council Member Ureta	121 W. 2nd Street	Fort Stockton	TX	79735
City of Fort Stockton	City Councilman	The Honorable	James Warnock	Council Member Warnock	121 W. 2nd Street	Fort Stockton	TX	79735
City of Fort Stockton	City Manager	Mr.	Frank Rodriguez III	Mr. Rodriguez	121 W. 2nd Street	Fort Stockton	TX	7973
City of Fort Stockton	Assistant City Manager	Ms.	Shera Lee Davis	Ms. Davis	121 W. 2nd Street	Fort Stockton	TX	7973
The Texas Office of Public Utility Counsel	Public Counsel	Ms.	Michelle Gregg	Ms. Gregg	1701 N. Congress Ave., Suite 9-180	Austin	TX	78713

Bakersfield to Solstice 345-kV Transmission Line Project State and Federal

Organization	Prefix	Contact	Formal	FormalTitle	Address1	City	State	Zip
Texas House of Representatives	The Honorable	Poncho Nevarez	Representative Nevarez	State Representative	P.O. Box 2910	Austin	TX	78768
Texas House of Representatives	The Honorable	Poncho Nevarez	Representative Nevarez	State Representative	1995 Williams St.	Eagle Pass	TX	78852
Texas Senate	The Honorable	Vacant						
Texas Senate	The Honorable	Vacant						
United States House of Representatives	The Honorable	Will Hurd	Representative Hurd	United States Representative	317 Cannon House Office Building	Washington	DC	20515
United States House of Representatives	The Honorable	Will Hurd	Representative Hurd	United States Representative	103 West Callaghan	Fort Stockton	TX t	79735
United States Senate	The Honorable	John Cornyn	Senator Cornyn	United States Senator	517 Hart Senate Office Building	Washington	DC	20510
United States Senate	The Honorable	John Cornyn	Senator Cornyn	United States Senator	221 West Sixth Street, Suite 1530	Austin	TX	78701
United States Senate	The Honorable	Ted Cruz	Senator Cruz	United States Senator	404 Russell	Washington	DC	20510
United States Senate	The Honorable	Ted Cruz	Senator Cruz	United States Senator	300 East 8th Street, Suite 961	Austin	TX	78701
U. S. Department of Defense Siting Clearinghouse	Mr.	Ron Tickle	Mr. Tickle	Executive Director	3400 Defense Pentagon, Room 5C646	Washington	DC	20301-3400

Bakersfield to Solstice 345-kV Transmission Line Project ISDs

Organization	Formal Title	Prefix	Contact	Formal	Address 1	City	State	Zip
Fort Stockton ISD	President	Mr.	Billy Espino	Mr. Espino	1500 W 18th	Fort Stockton	TX	79735
Fort Stockton ISD	Vice President	Mr.	Flo Garcia III	Mr. Garcia	101 West Division Street	Fort Stockton	TX	79735
Fort Stockton ISD	Secretary	Mr.	Freddie Martinez	Mr. Martinez	4123 North Orient	Fort Stockton	TX	79735
Fort Stockton ISD	Assistant Secretary	Mr.	Anastacio Dominguez	Mr. Dominguez	1608 N. Rio	Fort Stockton	TX	79735
Fort Stockton ISD	School Board Member	Ms.	Sandra Marquez	Ms. Marquez	101 West Division Street	Fort Stockton	TX	79735
Fort Stockton ISD	School Board Member	Mr.	Tom Ezell	Mr. Ezell	109 North Colpitts	Fort Stockton	TX	79735
Fort Stockton ISD	School Board Member	Mr.	Andy Rivera	Mr. Rivera	101 W. Division Street	Fort Stockton	TX	79735
Fort Stockton ISD	Superintendent	Mr.	Ralph Traynham	Mr. Traynham	101 West Division Street	Fort Stockton	TX	79735
Fort Stockton ISD	Assistant Superintendent	Ms.	Paula Traynham	Ms. Traynham	101 West Division Street	Fort Stockton	TX	79735
Buena Vista ISD	President	Mr.	Cruz Gomez	Mr. Gomez	404 West Highway 11	Imperial	TX	79743
Buena Vista ISD	Vice President	Ms.	Veronica Mandujano	Ms. Mandujano	404 West Highway 11	Imperial	TX	79743
Buena Vista ISD	Secretary	Mr.	Cody Alford	Mr. Alford	404 West Highway 11	Imperial	TX	79743
Buena Vista ISD	School Board Member	Mr.	Jacob Heritage	Mr. Heritage	404 West Highway 11	Imperial	TX	79743
Buena Vista ISD	School Board Member	Mr.	Paul Bruce Ivey	Mr. Ivey	404 West Highway 11	Imperial	TX	79743
Buena Vista ISD	School Board Member	Mr.	Roger Tarango	Mr. Tarango	404 West Highway 11	Imperial	TX	79743
Buena Vista ISD	School Board Member	Mr.	Eric Gomez	Mr. Gomez	404 West Highway 11	Imperial	TX	79743
Buena Vista ISD	Superintendent	Mr.	Mark Dominguez	Mr. Dominguez	404 West Highway 11	Imperial	TX	79743
Iraan-Sheffield ISD	Superintendent	Mr.	Michael Meek	Mr. Meek	404 West Highway 11	Imperial	TX	79743
Iraan-Sheffield ISD	President	Mr.	Steve Garlock	Mr. Garlock	P.O. Box 486	Iraan	TX	79744
Iraan-Sheffield ISD	Vice President	Mr.	Basil Ramirez	Mr. Ramirez	P.O. Box 486	Iraan	TX	79744
Iraan-Sheffield ISD	Secretary	Ms.	Margaret Holmes	Ms. Holmes	P.O. Box 486	Iraan	TX	79744
Iraan-Sheffield ISD	School Board Member	Mr.	John Graham	Mr. Graham	P.O. Box 486	Iraan	TX	79744
Iraan-Sheffield ISD	School Board Member	Mr.	Joe Sconiers	Mr. Sconiers	P.O. Box 486	Iraan	TX	79744
Iraan-Sheffield ISD	School Board Member	Mr.	Tory Cox	Mr. Cox	P.O. Box 486	Iraan	TX	79744
Iraan-Sheffield ISD	School Board Member	Mr.	Preston Villanueva	Mr. Villanueva	P.O. Box 486	Iraan	TX	79744

Bakersfield to Solstice 345-kV Transmission Line Project Public Generators

Organization	Formal Title	Prefix	Contact	Formal	Address 1	City	State	Zip
AEP	Wind Farm Operations Manager	Mr.	Jackie Oliver	Mr. Oliver	8135 East Highway 190	Iraan	TX	79744
NextEra Energy, Inc.	Manager, Business Management	Mr.	Hannes Grobler	Mr. Grobler	700 Universe Boulevard	Juno Beach	FL	33408
Sherbino I Wind Farm LLC; c/o BP Wind Energy								1
North America Inc.	Asset Manager	Ms.	Katherine Descamps	Ms. Descamps	201 Helios Way	Houston	TX	77079
East Pecos Solar, LLC; c/o First Solar	Supervisor, MOC	Mr.	Brian Penner	Mr. Penner	350 West Washington Street	Tempe	ΑZ	85281
Barrılla Solar c/o First Solar	Director, Project Management	Ms.	Kathryn Arbeit	Ms. Arbeit	135 Main Street, 6th Floor	San Franciso	CA	94105
BHE Renewables, LLC		Mr.	Joe Brannon	Mr. Brannon	1850 N. Central Ave. Suite 1025	Phoenix	AZ	85004
Recurrent Energy Development Holdings, LLC	Director, Asset Management	Mr.	Andrew Griffiths	Mr. Griffiths	300 California Street, 7th Floor	San Franciso	CA	94104
BHE Renewables, LLC	Project Manager	Mr.	Steve Wotruba	Mr. Wotruba	1850 N. Central Ave. Suite 1025	Phoenix	AZ	85004
Buckthorn Westex, LLC	Asset Manager	Mr.	Daniel Fleischmann	Mr. Fleischmann	4900 Scottsdale Rd. Suite 5000	Scottsdale	AZ	85251
Duke Energy Renewables Solar, LLC	Director, System Interconnection Services	Mr.	Graham Furlong	Mr. Furlong	550 South Caldwell Street, Mail Drop NAS06	Charlotte	NC	28202
Midway Solar LLC; c/o Hanwha Q Cells USA Corp.	Director, Interconnection and Land Development	Mr.	Brison R. Ellinghaus	Mr. Ellinghaus	300 Spectrum Center Drive, Suite 1250	Irvine	CA	92618

Bakersfield to Solstice 345-kV Transmission Line Project Pipeline Owners/Operators

Organization	Prefix	Contact	Address 1	City	State	Zìp
Alpine High Pipeline LLC	Mr.	Randy Earley	17802 IH 10 W Suite 300	San Antonio	TX	78257
ATMOS Energy, West Texas Division	Mr.	Bill Brooks	5110 80th St.	Lubbock	TX	79424
ATMOS Pipeline - Texas	Mr.	Brian Jackson	5420,LBJ Freeway Suite 1800	Dallas	TX	75240
BC Operating, Inc.	Ms.	Tami Parker	P.O. Box 50820	Midland	TX	79710
Belding Gas Co., Inc.	Mr.	Dale Stennett	P.O. Box 1208	Fort Stockton	TX	79735
Bluestone Natural Res. II, LLC	Ms.	Krisit Perryman	2100 S. Utica Ave. Suite 200	Tulsa	ОК	74114
Bravo Pipeline Company	Mr.	Jose Rodriguez	P.O. Box 1140	Sundown	TX	79372
Brazos Midstream Operating, LLC	Mr.	Ryan Jagge	300 Throckmorton St. Suite 530	Fort Worth	TX	76102
Brazos Midstream Operating, LLC	Mr.	Ryan Jagge	3017 West 7th St., Ste. 300	Fort Worth	TX	76107
Burleson Petroleum, Inc.	Mr.	Steven Burleson	P.O. Box 2479	Midland	TX	79702
Chadco Gas Company	Mr.	Charles Kuss	3801 Wedgewood Ct.	Midland	TX	79707
Chevron Midcontinent, LP	Ms.	Sandra Stedman	P.O. Box 2100	Houston	TX	77252
Cliffwood Production Co.	Mr.	Perry Lawrence	5070 Old Magnolia Rd.	Freer	TX	78357
Dcp Operating Company, LP	Mr.	Nick Schavrien	370 17th St. Suite 2500	Denver	со	80202
Earnest Producing Corporation	Mr.	Art Wiebusch	310 West Wall St. Suite 802	Midland	TX	79701
El Paso Natural Gas Co, LLC	Mr.	Lee Baskin	1001 Louisiana Suite 1000	Houston	TX	77002
Energen Resources Corporation	Mr.	Andy Cobb	3510 North A St. Bldgs A & B	Midland	TX	79705
Energy Transfer Company	Ms.	Kimberly Fitzhenry	1300 Main St.	Houston	TX	77002
Enterprise Products Operating, LLC	Ms.	Latoya Hurley	1100 Louisiana St.	Houston	TX	77002
Enterprise Products Operating, LLC	Ms.	Latoya Hurley	9420 West Sam Houston Pkwy.	Houston	TX	77064
Forge Energy, LLC	Ms.	Katrina Boyd	P.O. Box 1978	Andrews	TX	79714
Glossop, Robert L. Estate	Ms.	Mary Glossop	P.O. Box 4803	Midland	TX	79704
Halcon Operating Co., Inc.	Mr.	Larry Jo	1000 Louisiana St. Suite 6700	Houston	TX	77002
Houston Pipe Line Company LP	Ms.	Kimberly Fitzhenry	1300 Main St.	Houston	TX	77002
Kinder Morgan Texas Pipeline LLC	Mr.	Lee Baskin	1001 Louisiana St. Suite 1000	Houston	TX	77002
Legacy Reserves Operating LP	Mr.	Travis McGraw	P.O. Box 10848	Midland	TX	79702
Natural Gas P/L CO oF Amer LLC	Mr.	Lee Baskin	1001 Louisiana St. Suite 1000	Houston	TX	77002
Northern Natural Gas Co.	Mr.	John Gormley	1111 South 103rd St.	Omaha	NE	68124
Oxy USA Inc.	Mr.	Albert Mendoza	5 Greenway Plaza Suite	Houston	TX	7704
Oryx So. Delaware Ogt LLC	Mr.	Martin Jale	4000 N. Big Spring St. Suite 300	Midland	TX	7970
Oryx So. Delaware Ogt LLC	Mr.	Martin Jale	4000 N. Big Spring St., Ste. 400	Midland	TX	7970
Phillips 66 Pipeline LLC	Mr.	Todd Fuska	3010 Briarpark Dr.	Houston	TX	7704
Pioneer Gas Pipeline, Inc.	Mr.	Philip Allard	217 W. Beaureard Ave.	San Angelo	TX	7690
Plains Marketing, LP	Mr.	John Waldeck	P.O. Box 4648	Houston	TX	7721
Primexx Operating Corporation	Mr.	Sanford Fagadau	4849 Greenville Ave. Suite 1600	Dallas	TX	7520
Sahara Operating Company	Mr.	Robert McAlpine	P.O. Box 4130	Midland	TX	7970
Samson Exploration, LLC	Ms.	Cherice Wheeler	110 West 7th St. Suite 2000	Tulsa	ОК	7411
Shell Western E&P	Mr.	Jason Dupres	150 C North Dairy Ashford	Houston	TX	7707
Skybridge Energy LLC	Mr.	Mark McBryde	P.O. Box 207	Jacksboro	TX	7645
Targa Midstream Services LLC	Ms.	Jill Simon	1399 Davison Rd.	Sulphur	LA	7066
Targa Midstream Services LLC	Ms.	Jill Simon	811 Louisiana, Ste. 2100	Houston	TX	7700
Noble Energy	Mr.	David Stover	1001 Noble Energy Way	Houston	TX	7707
West Texas Gas, Inc.	Mr.	Richard Hatchet	211 North Colorado St.	Midland	TX	7970
WTG Gas Transmission Company	Mr.	Richard Hatchet	211 North Colorado St.	Midland	TX	7970

Joint Application of LCRA Transmission Services Corporation and AEP Texas Inc. to Amend Their Certificates of Convenience and Necessity for the Proposed Bakersfield to Solstice 345-kV Transmission Line Project in Pecos County, Texas

PUBLIC NOTICE

PUBLIC UTILITY COMMISSION OF TEXAS DOCKET NO. 48787

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AEP Tieses at 400 W 15th Street, South 1500, Annua, Texas 78701 An appearament must be made to obtain at certee the map at APP Texas of 124814577: And the Parce County Clark, 200 S. Nelson Street, Fort Stockron, Town 79735

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Public Utility Commission of Texas Central Records Attn: Filing Clerk 1701 N. Congress Ave. P.O. Box 13326 Austin, Texas 78711-3326

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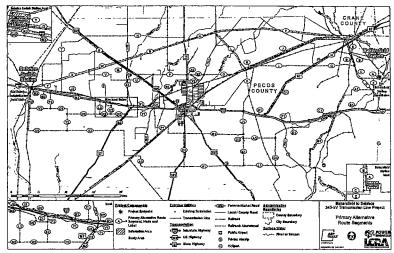
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VIA HAND DELIVERY

November 7, 2018

Ms. Laura Zebehazy Wildlife Habitat Assessment Program Wildlife Division Texas Parks and Wildlife Department 4200 Smith School Road Austin, Texas 78744-3291

Re: Joint Application of LCRA Transmission Services Corporation and AEP Texas Inc. to Amend their Certificates of Convenience and Necessity for the Proposed Bakersfield to Solstice 345-kV Transmission Line Project in Pecos County, Texas

PUBLIC UTILITY COMMISSION OF TEXAS (PUC) DOCKET NO. 48787

Dear Ms. Zebehazy:

On Wednesday, November 7, 2018, LCRA Transmission Services Corporation and AEP Texas Inc. filed with the Public Utility Commission of Texas (Commission) the above-referenced application to amend their Certificates of Convenience and Necessity (CCN) to construct the Bakersfield to Solstice 345-kV Transmission Line Project in Pecos County, Texas.

As you are aware, the Commission's CCN application requires that we provide for review and comment a copy of the project environmental assessment (EA) to Texas Parks and Wildlife Department (TPWD) within seven days after the application is filed. Accordingly, enclosed with this letter is a copy of the EA prepared for the referenced project as well as a complete copy of LCRA TSC's and AEP Texas' CCN application filed at the Commission. The CCN application also requires that a copy of this transmittal letter be included with the project application. You will find a copy of this letter included as Attachment 10 to the filed Application.

Under the traditional CCN process, TPWD typically provides the Commission Staff with comments about the application. On behalf of LCRA TSC and AEP Texas, and as we have requested in past CCN cases, we would also appreciate receiving a copy of any comments TPWD may choose to provide to Commission Staff. You may send those comments to Sonya Strambler and Randal Roper at the addresses shown below. Of course, LCRA and AEP Texas reserve the right to inquire into the basis of any comments or recommendations TPWD may choose to submit in this case, but we are certain the appropriate arrangements can be made for that inquiry if the necessity arises.

Finally, it has been LCRA TSC's practice to provide TPWD staff with a briefing of the CCN application and the accompanying EA. To that end, if it would be of benefit to you, we would appreciate the opportunity to visit with you and your staff at your earliest convenience. If you have any questions about the EA, please feel free to contact Sonya Strambler at (512) 578-1856.

Sincerely,

Donya Strambles

Pandel Coper





Sonya Strambler Regulatory Case Manager Lower Colorado River Authority P.O. Box 220, MS DSC-D140 Austin, Texas 78767 Randy Roper Regulatory Case Manager AEP Texas, Inc. 400 W. 15th Street, Suite 1500 Austin, Texas 78701

Enc: CCN Application including EA for the Bakersfield to Solstice 345-kV Transmission Line Project

cc: Mr. Kirk Rasmussen, Enoch & Kever PLLC w/o enc.

Ms. Emily Jolly, LCRA TSC w/o enc.

Mr. Lance Wenmohs, LCRA TSC w/o enc.

Ms. Karen Hubbard, Public Utility Commission of Texas w/o enc.

Mr. Matthew Arth, Public Utility Commission of Texas w/o enc.

Mr. Blake Ianni, Public Utility Commission of Texas w/o enc.

Ms. Lisa Barko Meaux, POWER Engineers w/o enc.

PUC DOCKET NO. 48787

JOINT APPLICATION OF LCRA	§	BEFORE THE
TRANSMISSION SERVICES	§	
CORPORATION AND AEP TEXAS INC.	§	
TO AMEND THEIR CERTIFICATES OF	§	PUBLIC UTILITY COMMISSION
CONVENIENCE AND NECESSITY FOR	§	
THE PROPOSED BAKERSFIELD TO	§	
SOLSTICE 345-KV TRANSMISSION	§	OF TEXAS
LINE PROJECT IN PECOS COUNTY,	§	
TEXAS		

DIRECT TESTIMONY AND EXHIBITS

OF

SONYA STRAMBLER

ON BEHALF OF

APPLICANTS
LCRA TRANSMISSION SERVICES CORPORATION
And
AEP TEXAS INC.

November 2018

PUC DOCKET NO. 48787 DIRECT TESTIMONY AND EXHIBITS OF SONYA STRAMBLER

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EXHIBITS

Exhibit SS-1: Project Experience
Exhibit SS-2: PURA § 37.056
Exhibit SS-3: PUC Substantive Rule § 25.101
Exhibit SS-4: PUC Procedural Rule § 22.52

Exhibit SS-5: Overview of Sponsorship of the Application

Exhibit SS-6: University Lands Correspondence

PUC DOCKET NO. 48787 DIRECT TESTIMONY AND EXHIBITS OF SONYA STRAMBLER

I. INTRODUCTION

- 2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
- 3 A. My name is Sonya Strambler. My business address is: Lower Colorado River Authority,
- 4 3505 Montopolis Drive, Building D, Austin, Texas 78744.

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A.

- 5 Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?
- 6 A. I am employed by the Lower Colorado River Authority (LCRA) as a Regulatory Case
- Manager (RCM), and am providing testimony in this docket on behalf of LCRA
- 8 Transmission Services Corporation (LCRA TSC) and AEP Texas Inc. (AEP Texas).

9 Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL 10 QUALIFICATIONS AND BUSINESS EXPERIENCE.

I earned both of my degrees from St. Edward's University in Austin, Texas. These include a Bachelor of Business Administration in Business and Management as well as a Master of Science in Project Management. I obtained my Project Management Professional Certification in 2017. I have been employed by LCRA for the past thirteen years. My business experiences include administrative support functions in customer service, environmental and regulatory affairs departments and project controls in the Project Management Office. Prior to my role as an RCM, I was a project manager. In this role, I managed substation, transmission line, and telecommunication projects with budgets ranging from \$300,000 to \$6 million from planning through project closeout phases. I delivered projects within the constraints of scope, quality, time, cost, and meeting customer satisfaction requirements. I developed and executed project budgets, schedules, scope documentation and financial analyses. In addition, I led internal and external resource teams. Exhibit SS-1 contains a list of significant projects I managed.

Specifically related to Certificate of Convenience and Necessity (CCN) transmission projects, in one of my prior positions at LCRA as Sr. Administrative Assistant, I supported the Regulatory Case Managers with Competitive Renewable Energy Zone (CREZ) transmission line projects and other CCN projects, including Docket Nos. 37448, 37778, 38354, 39479, and 40684. Throughout those proceedings, I assisted in the public involvement process, public meetings, filing notification efforts, and hearing

Strambler Direct Testimony Page 3 630

1		preparation. As an Analyst in the Project Management Office, my experience with CCN
2		projects involved preparation of monthly CREZ financial reporting to the Public Utility
3		Commission of Texas (Commission or PUC). I also assisted in Docket No. 48358 during
4		the public involvement and routing processes.
5	Q.	PLEASE DESCRIBE YOUR JOB RESPONSIBILITIES, PARTICULARLY AS
6		THEY APPLY TO THIS PROJECT.
7	A.	As the RCM for the proposed Bakersfield to Solstice 345-kilovolt (kV) Transmission Line
8		Project (Project), I am responsible for coordinating the preparation of LCRA TSC's and
9		AEP Texas' joint application to amend their CCNs to construct, own, operate, and maintain
10		the Project (Application). My involvement in the Project includes, in coordination with
11		representatives from AEP Texas, the following:
12 13		 Managing the public involvement process, including coordinating public open house meetings and other meetings with landowners and local officials;
14 15 16		• Overseeing the preparation by POWER Engineers, Inc. (POWER) of the Bakersfield to Solstice 345-kV Transmission Line Project Environmental Assessment and Alternative Route Analysis, Pecos County (EA);
17 18 19 20 21 22		 Managing the overall Application preparation, including coordinating with team members from LCRA, AEP Texas, and POWER and developing a suite of routes that address the applicable requirements of the Public Utility Regulatory Act (PURA) (see Exhibit SS-2), the PUC Substantive Rules (see Exhibit SS-3), the PUC's CCN application requirements, and issues commonly required to be addressed in PUC preliminary orders associated with CCN applications;
23 24		 Providing notice of the Application to all affected parties in accordance with all applicable PUC rules (see Exhibit SS-4); and
25		• Providing testimony in support of the Application at the Commission.
26	Q.	HAVE YOU TESTIFIED BEFORE THE COMMISSION PREVIOUSLY?
27	A.	No, I have not provided testimony before the Commission.
28		II. <u>DESCRIPTION OF THE PROJECT</u>
29	Q.	PLEASE DESCRIBE THE PROJECT.
30	A.	LCRA TSC and AEP Texas are jointly proposing to build and operate a new 345- kV,

double-circuit transmission line and upgrade the related station facilities in Pecos County,

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Texas. The new line will connect LCRA TSC's existing Bakersfield Station to AEP Texas' existing Solstice Switch Station.

In April 2016, Oncor Electric Delivery Company LLC (Oncor) and AEP Texas submitted to the Electric Reliability Council of Texas (ERCOT) Regional Planning Group (RPG) a combination of transmission projects west of Odessa, Texas referred to as the "Far West Texas Project" to address load growth in the area. In June 2017, the ERCOT Board of Directors endorsed a new 345-kV transmission line extending approximately 70 miles from LCRA TSC's Bakersfield Station to AEP Texas' Solstice Switch Station and designated LCRA TSC and AEP Texas as the transmission service providers (TSPs) to certificate, construct, own, operate, and maintain that line. In June 2018, the ERCOT Board of Directors endorsed expanding the Bakersfield to Solstice project to include installation of a second circuit at the time of construction and determined that the line was critical to the reliability of the ERCOT System. The double-circuit 345-kV transmission line from LCRA TSC's Bakersfield Station to AEP Texas' Solstice Switch Station endorsed by the ERCOT Board of Directors and designated as critical to the reliability of the ERCOT system is the Project associated with this Application.

Q. HOW ARE LCRA TSC AND AEP TEXAS PROPOSING TO DIVIDE THE PROJECT BETWEEN THEM?

As proposed in the Application, LCRA TSC and AEP Texas are co-applicants in this proceeding. Each will own 50 percent of the Project. LCRA TSC is seeking certification to construct, own, operate, and maintain the eastern half of the transmission line connecting to LCRA TSC's Bakersfield Station (including all necessary construction associated with expansion of the Bakersfield Station). LCRA TSC will own, operate, and maintain all transmission line facilities, including conductors, wires, structures, hardware, and easements of the eastern half of the transmission line. AEP Texas is seeking certification to construct, own, operate, and maintain the western half of the transmission line connecting to AEP Texas' Solstice Switch Station (including all necessary construction associated with expansion of the Solstice Switch Station). Thus, AEP Texas will own, operate, and maintain all transmission line facilities, including conductors, wires, structures, hardware, and easements of the western half of the transmission line. Each

A.

utility will be responsible for its respective portions of the Project, including design, right-of-way (ROW) acquisition, material procurement, construction, and any necessary permitting for their half of the Project.

The exact dividing point will be determined following the Commission's approval of the final transmission line route. The structure closest to the middle of the approved route will be a deadend structure owned by AEP Texas. LCRA TSC's ownership will extend from the east to the point at which its conductors connect to AEP Texas' deadend structure.

9 O. WILL ONCOR PARTICIPATE IN THIS DOCKET?

A.

A. Yes. Because much of the need for the Project is associated with the rest of the Far West Texas Project, Oncor will intervene in this docket and will provide testimony regarding the need for the Project. In addition, AEP Texas and Oncor are simultaneously filing their CCN application for the Sand Lake to Solstice Transmission Line, another component of the Far West Texas Project. Because the Project in this case and the AEP Texas and Oncor project share a common endpoint at Solstice, the applicants in both cases will request that the dockets be consolidated.

Q. WHAT DOES IT MEAN THAT THE PROJECT WAS DESIGNATED BY THE ERCOT BOARD OF DIRECTORS AS CRITICAL TO THE ERCOT SYSTEM?

According to PUC Substantive Rule 25.101(b)(3)(D) (see Exhibit SS-3), applications for transmission lines that have been designated by ERCOT as critical to the ERCOT system "shall be considered by the commission on an expedited basis." According to the rule, the Commission is to render a decision approving or denying the application within 180 days of the date of filing of a complete application unless good cause is shown for extending that period. Mr. Brent R. Kawakami, Senior Engineer in Oncor's Transmission Planning group, provides testimony explaining the need for the Project that resulted in the critical designation by ERCOT.

III. PURPOSE OF TESTIMONY

O. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS DOCKET?

3 A. My testimony addresses the following:

A.

- A description of LCRA TSC and an introduction of the witnesses providing testimony on behalf of LCRA TSC and AEP Texas in this proceeding;
- LCRA TSC and AEP Texas' compliance with PURA and the Commission's rules and orders, including compliance with requirements relating to the public participation process and provision of notice; and
- LCRA TSC and AEP Texas' process for identifying and evaluating a number of geographically diverse alternative transmission line routes that are in compliance with the rules, policies, and orders of the Commission.

The filed Application will be offered into evidence by LCRA TSC and AEP Texas as an exhibit. The statements and opinions expressed in this testimony are based on my previously described experience, my review of the EA prepared by POWER (included with the Application as Attachment 1), discussion and collaboration with LCRA and AEP Texas specialists, discussion and collaboration with POWER employees who participated in the development of the Application, and field inspections of the Project area.

18 Q. PLEASE BRIEFLY DESCRIBE THE TESTIMONY OF THE OTHER 19 WITNESSES WHO PROVIDE DIRECT TESTIMONY IN THIS DOCKET.

As discussed previously, Mr. Kawakami with Oncor testifies regarding the need for the Project. Mr. Brent Harris, Project Manager for AEP Texas, describes AEP Texas and testifies regarding AEP Texas' participation in the Application development, financing, schedule, right-of-way acquisition, and construction for AEP Texas' portion of the Project. Mr. Curtis Symank, P.E., Senior Project Manager for POWER, testifies regarding the engineering design and cost estimates for the Project. Ms. Lisa Meaux, Project Manager and Environmental Department Manager for POWER, testifies regarding the preparation of the EA for the Project. Each witness also sponsors portions of the Application that correspond to his or her respective discipline.

1	Q.	WHY IS MR. KAWAKAMI, WHO IS EMPLOYED BY ONCOR, PROVIDING
2		TESTIMONY IN THIS APPLICATION OF LCRA TSC AND AEP TEXAS?

- 3 A. As discussed previously, Oncor and AEP Texas first presented the Far West Texas Project 4 to ERCOT in 2016. Mr. Kawakami prepared and sponsored materials provided to ERCOT 5 for ERCOT's review of the Project all the way through the ERCOT Board of Directors' 6 designation of the Project as critical to the reliability of the ERCOT system in the summer 7 of 2018. As can be seen in Attachments 2a, 2b, 2c, and 2d to the Application and in Mr. 8 Kawakami's testimony, the need for the Project is significantly based on oil and gas load 9 growth that Oncor is experiencing on their system. Thus, it is appropriate for Mr. 10 Kawakami to provide testimony regarding the load growth on Oncor's system and the 11 system improvements being made to address this load growth in this Application.
- 12 Q. WHAT PORTIONS OF THE APPLICATION DO YOU AND OTHER WITNESSES
 13 SPONSOR?
- 14 A. I co-sponsor the responses to Questions 1, 2, 3, 4, 8, 9, 10, 11, 12, 17, 18, 19, 25, 29 and 30 of the Application and Attachments 1 and 4 through 11. Please see Attachment SS-5 for a table showing complete sponsorship of the Application Questions and Attachments.
- Q. WERE YOUR TESTIMONY AND THE PORTIONS OF THE APPLICATION
 YOU SPONSOR PREPARED BY YOU OR BY KNOWLEDGEABLE PERSONS
 UPON WHOSE EXPERTISE, JUDGMENT, AND OPINIONS YOU RELY IN
 PERFORMING YOUR DUTIES?
- 21 A. Yes.
- Q. IS THE INFORMATION CONTAINED IN YOUR TESTIMONY AND IN THE PORTIONS OF THE APPLICATION YOU SPONSOR TRUE AND CORRECT TO THE BEST OF YOUR KNOWLEDGE AND BELIEF?
- 25 A. Yes.

IV. <u>DESCRIPTION OF LCRA TSC</u>

2 Q. PLEASE DESCRIBE LCRA TSC.

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A. LCRA TSC is a nonprofit corporation of LCRA, acting on its behalf and as its instrumentality. It has the authority to carry out LCRA's governmental functions and contributes money to fund LCRA's statutory obligations, like public safety, parks management, water safety, and long-term water supply infrastructure. All of LCRA TSC's facilities are presently operated within the Electric Reliability Council of Texas. LCRA TSC is a TSP with no retail customers. LCRA TSC has no employees. Employees of LCRA provide necessary services to LCRA TSC through a service agreement.

Q. PLEASE DESCRIBE LCRA TSC'S TRANSMISSION SYSTEM.

11 A. Presently, LCRA TSC owns or operates approximately 5,200 circuit miles of high voltage 12 transmission lines in over 70 counties across Central Texas and portions of West and South 13 Texas. In addition, LCRA TSC operates facilities at approximately 400 substations.

14 Q. PLEASE DESCRIBE HOW LCRA TSC WILL FINANCE THE PROJECT.

15 A. LCRA TSC will finance its portion of the Project similar to that which has used for projects
16 previously constructed by LCRA TSC. Financing may include a combination of tax17 exempt commercial paper, tax-exempt private revolving note, or taxable commercial paper,
18 and, subsequent to project completion, fixed-rate debt. Interest on the debt may be
19 capitalized until the Project is in service, at which point it is intended that both the principal
20 and interest will be serviced with Transmission Cost of Service revenues.

1 Q. WHAT IS LCRA TSC'S SCHEDULE FOR ITS PORTION OF THE PROJECT?

2 A. The estimated schedule for LCRA TSC's portion of the transmission line facilities associated with the Project is shown in the table below.

Estimated Dates of:	Start	Completion
Right-of-way and Land Acquisition	May 2019	October 2019
Engineering and Design	June 2019	November 2019
Material and Equipment Procurement	December 2018	February 2020
Construction of Facilities	December 2019	December 2020
Energize Facilities	-	December 2020

4 V. IDENTIFICATION OF DIRECTLY AFFECTED PROPERTIES AND NOTICE

- 5 Q. PLEASE DESCRIBE LCRA TSC AND AEP TEXAS' PROCESS FOR IDENTIFYING LANDOWNERS THAT ARE DIRECTLY AFFECTED BY THE PROJECT.
- 8 In providing notice for the Application, LCRA TSC and AEP Texas followed the process A. 9 established in PUC Procedural Rule 22.52, which requires applicants to notify directly 10 affected landowners as identified on county tax rolls. According to the Commission's rule, 11 land is affected if an easement or other property interest would be obtained over all or any 12 portion of it, or if it contains a habitable structure that would be within 500 feet of the centerline of a transmission line greater than 230-kV. LCRA TSC and AEP Texas 13 14 identified all parcels within 500 feet of the centerline of all routes included in the 15 Application based on data from the Pecos County Appraisal District.
- 16 Q. PLEASE DESCRIBE ANY ADDITIONAL STEPS TAKEN BY THE APPLICANTS
 17 TO IDENTIFY LANDOWNERS THAT ARE DIRECTLY AFFECTED BY THE
 18 PROJECT.
- 19 A. In addition to the specific requirements of PUC Procedural Rule 22.52, LCRA TSC and 20 AEP Texas performed additional steps in an effort to identify and provide notice to

landowners directly affected by the Project. The additional steps included identifying and researching of "zero accounts," which refers to property accounts received from the Pecos County Appraisal District with no ownership identification information, and performing descriptive deed research in order to map properties with an overlay of the routes. LCRA TSC and AEP Texas utilized this approach to best ensure notice to owners of land directly affected by the Project.

Q. PLEASE DESCRIBE THE NOTICE LCRA TSC AND AEP TEXAS PROVIDED IN ASSOCIATION WITH THE APPLICATION FILING.

In accordance with PUC Procedural Rule 22.52, LCRA TSC and AEP Texas provided the following notice in association with the filing of the Application in this docket.

Landowner Notice: LCRA TSC and AEP Texas mailed notice to directly affected landowners on the same day the application was filed with the Commission. The notice was mailed by First-Class mail and contained information on how to participate in the proceeding and the deadline for intervention. The notice also included a description of the Project with a highway-based map of the overall project area encompassing all alternative routes, route descriptions narrative, an intervention and comment form, and a copy of the PUC Landowner Brochure. The notice also provided direction about how landowners could review a copy of a detailed map of the alternative routes.

<u>Published Notice</u>: LCRA TSC and AEP Texas will publish a public notice in the Fort Stockton Pioneer no later than one week after filing the application. The Fort Stockton Pioneer is considered a newspaper with general circulation for Pecos County. A publishers' affidavit will be filed with the Commission as soon as available following publication.

<u>Texas Parks and Wildlife Department:</u> Concurrent with the filing of the Application, LCRA TSC and AEP Texas provided a copy of the environmental assessment for the Project to the Texas Parks and Wildlife Department (TPWD).

<u>Counties and Municipalities</u>: Concurrent with the filing of the Application, written notice was mailed by First-Class mail to Pecos County officials and municipal authorities for the City of Fort Stockton.

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Neighboring Utilities: Concurrent with the filing of the Application, written notice was mailed by First-Class mail to the following utilities providing electric utility service within five miles of the requested facility:

Electric Cooperatives

Rio Grande Electric Cooperative
Southwest Texas Electric Cooperative
South Texas Electric Cooperative

Investor-Owned Utilities

Oncor Electric Delivery Company
Texas-New Mexico Power Company

Municipal Utilities

Garland Power & Light

Officials, Organizations, and Potentially Interested Parties: Concurrent with the filing of the Application, written notice was hand-delivered or mailed by First-Class mail to state and federal representatives and senators in whose districts the Project is proposed, various independent school districts, the Office of Public Utility Counsel, owners of railroads crossed by a proposed route, and owners or operators of pipeline facilities crossed by a proposed route. A complete list of the notices hand delivered or mailed to public officials, organizations, and other potentially interested parties is included as Attachment 8 to the Application.

Notice to Department of Defense Siting Clearinghouse: Concurrent with the filing of the Application, written notice was mailed by First-Class mail to the Department of Defense Siting Clearinghouse (DOD).

An affidavit attesting to the provision of notice in compliance with the Commission's rules will be filed with the Commission no later than 20 days after the filing of the Application.

1	Q.	DID LCRA TSC AND AEP TEXAS HOLD ANY PUBLIC OPEN HOUSES ABOUT
2		THE PROJECT PRIOR TO FILING THE APPLICATION?

3 A. Yes. One public open house meeting was held for the Project in the City of Fort Stockton on July 12, 2018.

5 Q. DID LCRA TSC AND AEP TEXAS PROVIDE NOTICE OF THE OPEN HOUSE 6 MEETING PURSUANT TO PUC PROCEDURAL RULE 22.52?

Yes, LCRA TSC and AEP Texas provided direct mail notice of the public meeting by FirstClass mail as well as overnight delivery to owners of land within 500 feet of the centerline
of the preliminary alternative segments and to the DoD. The notice LCRA TSC and AEP
Texas provided in association with the public open house meeting is more fully described
in response to Question 18 of the Application, Chapter 3 and Appendix B of the EA, and
Section VIII of my direct testimony below.

13 VI. ROUTING IN COMPLIANCE WITH PURA, THE COMMISSION'S RULES, 14 CCN APPLICATION FORM, AND COMMISSION PRELIMINARY ORDERS

15 Q. ARE YOU FAMILIAR WITH THE PROVISIONS IN PURA RELATED TO CCN 16 AMENDMENTS?

Yes. PURA § 37.056(c)(4) (attached to my testimony as Exhibit SS-2) requires the Commission to consider such factors as: (A) community values, (B) recreational and park areas, (C) historical and aesthetic values, and (D) environmental integrity in determining whether to grant a CCN amendment. The Application presented in this proceeding and each route and constituent segment has been evaluated by the Applicants regarding the statutory factors of PURA listed above and provides the Commission with information about each statutory factor in a manner that the Commission can properly evaluate the Application.

PURA § 37.056(c) also requires the Commission to consider the adequacy of existing service, the need for additional service, and the probable improvement of service or lowering of cost to consumers in the area if a CCN amendment is granted. Mr. Kawakami's testimony addresses these portions of PURA related to the Project.

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1 Q. ARE YOU FAMILIAR WITH THE ROUTING CRITERIA IDENTIFIED IN PUC

- 2 **SUBSTANTIVE RULE 25.101(b)(3)(B)?**
- 3 A. Yes. The routing criteria referenced in this part of the PUC's Substantive Rules are attached to my testimony as Exhibit SS-3.
- 5 Q. BRIEFLY DESCRIBE THE ROUTING CRITERIA CONTAINED IN PUC 6 SUBSTANTIVE RULE 25.101(b)(3)(B).
- 7 A. PUC Substantive Rule 25.101(b)(3)(B) requires that, to the extent reasonable without
- 8 compromising reliability and safety and considering the requirements of PURA § 37.056
- 9 (attached as Exhibit SS-2), known engineering constraints, and costs, proposed electric
- transmission lines should be routed in such a manner as to:
- 1. Parallel or utilize existing compatible right-of-way (ROW) for electric facilities, including the use of vacant positions on existing multiple-circuit transmission lines;
- 2. Parallel or utilize other existing compatible ROW; including roads, highways, railroads, or telephone utility ROW;
 - 3. Parallel property lines or other natural or cultural features; and
 - 4. Conform to the PUC's policy of prudent avoidance.
- 17 Q. WERE THE ROUTES AND SEGMENTS INCLUDED IN THE APPLICATION
- 18 IDENTIFIED IN ACCORDANCE WITH THE COMMISSION'S ROUTING
- 19 **CRITERIA?**

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- 20 A. Yes. Where feasible, the alternative routes and route segments included within the
- 21 Application utilize compatible routing corridors by paralleling existing ROW, property
- 22 lines, and other natural or cultural features. Considering PURA § 37.056, PUC Substantive
- Rule 25.101(b)(3)(B) and the PUC's policy of prudent avoidance, LCRA TSC and AEP
- Texas have reasonably routed the Project's alternative routes to moderate the impact on the
- 25 affected community and directly affected landowners. LCRA TSC and AEP Texas have
- done so by paralleling existing transmission line ROW to the extent feasible without
- compromising reliability, paralleling road and highway ROW, paralleling railroad ROW,
- and by paralleling property lines and other compatible routing features.

1	Q.	ARE THE ROUTES IN THE APPLICATION CONSISTENT WITH THE PUC'S
2		POLICY OF PRUDENT AVOIDANCE?

- 3 A. Yes. The proposed alternate routes for the Project are consistent with the PUC's prudent
- 4 avoidance policy. All of the proposed alternate routes and segments composing such routes
- 5 reflect reasonable investments of money and effort in order to limit exposure to electric
- 6 and magnetic fields.
- 7 Q. PLEASE EXPLAIN THE STEPS TAKEN BY LCRA TSC AND AEP TEXAS TO
- 8 REDUCE THE IMPACTS TO LANDOWNERS THAT MAY RESULT FROM
- 9 **CONSTRUCTION OF THE PROJECT.**
- 10 A. LCRA TSC and AEP Texas have proposed alternative routes that parallel existing
- 11 compatible ROW (existing transmission line ROW and roads), follow compatible routing
- features, and parallel apparent property lines where reasonable. Additionally, LCRA TSC
- and AEP Texas made routing adjustments (as described in the EA in Section 3) based on
- input from the public where reasonable and practical.
- 15 Q. DOES THE APPLICATION CONTAIN AN ADEQUATE NUMBER OF
- 16 ALTERNATIVE ROUTES TO CONDUCT A PROPER EVALUATION?
- 17 A. Yes. As proposed, the Project includes a number of geographically diverse routes from
- Bakersfield Station to Solstice Switch Station. Ms. Meaux addresses in her testimony in
- 19 greater detail the diversity of alternative routing options included in the Application that
- resulted from the combination of segments between the two endpoints.
- 21 Q. ARE LCRA TSC AND AEP TEXAS REQUIRED TO IDENTIFY AN
- 22 ALTERNATIVE ROUTE IN THE APPLICATION THAT THEY BELIEVE BEST
- 23 ADDRESSES THE REQUIREMENTS OF PURA AND THE PUC SUBSTANTIVE
- 24 RULES?
- 25 A. Yes. Question 17 of the Commission's CCN application form requires an applicant to
- 26 identify the "alternative route the applicant believes best addresses the requirements of
- 27 PURA and P.U.C. Substantive Rules." LCRA TSC and AEP Texas identified Route 24 as
- the route that best addresses the requirements of PURA and the PUC's Substantive Rules.

However, while LCRA TSC and AEP Texas identified Route 24 as the route that best addresses the requirements of PURA and the PUC's Substantive Rules at the time of the filing of the Application, all 25 routes in the Application, and any reasonably forward-progressing route that can be delineated from the 82 individual route segments that serve to connect the existing Bakersfield Station and Solstice Switch Station are viable options available for approval by the Commission.

7 Q. IS ROUTE 24 LCRA TSC AND AEP TEXAS' PREFERRED OR RECOMMENDED 8 ROUTE?

9 A. No, neither Route 24, nor any other route, is LCRA TSC and AEP Texas' "preferred" or "recommended" route. Route 24 is simply the route LCRA TSC and AEP Texas identified shortly before the filing of the Application as the route they believe best addresses the requirements of PURA and the PUC's Substantive Rules.

VII. PUBLIC INVOLVEMENT

14 Q. PLEASE DESCRIBE LCRA TSC AND AEP TEXAS' ACTIVITIES FOR PUBLIC INVOLVEMENT IN THE PROJECT.

LCRA TSC and AEP Texas held an open house meeting for the Project. The open house meeting was held on July 12, 2018, from 5:30 p.m. to 8:00 p.m. at the Pecos County Civic Center in Fort Stockton, Texas. A total of 1,440 written notices of the meeting were sent to owners of property within approximately 500 feet of the centerline of the preliminary alternative segments. Also, local public officials and various state and federal officials were mailed or delivered individual written notice of the meeting. Notice of the open house was mailed to the DoD pursuant to PUC Procedural Rule 22.52(a)(4). In addition, a public notice for the open house was published on July 5 and July 12, 2018 in the *Fort Stockton Pioneer*, a local newspaper having circulation within Pecos County.

The public notices announced the location, time, and purpose of the meeting. A copy of the notice published in the *Fort Stockton Pioneer* is provided in Appendix B of the EA.

A.

The open house meeting had the following objectives:

- Promote a better understanding of the Project, including its purpose, need, potential benefits, and impacts, and the PUC certification process;
- Inform the public with regard to the routing procedure, schedules, and route approval process; and
- Gather the values and concerns of the public and community leaders.

The open house meeting was organized as an informal come and go format with information stations that were occupied with representatives from LCRA TSC, AEP Texas, or POWER. The stations consisted of: text displays explaining various topics, topography, segment and notification maps, aerial photography, and a GIS computer station. Upon arrival, attendees were offered a preliminary alternative route segments map, questionnaire, and a frequently asked questions document. This meeting format is typically better for attendees as it allows them the opportunity to gather particular information that is most important to them and focus on topics they are most interested in. This format also allows for more individualized discussions from attendees who otherwise might be hesitant in a formal presentation setting.

A total of 49 individuals attended the open house meeting, with 16 questionnaires submitted at the meeting. An additional seven questionnaires were received after the open house for a total of 23 questionnaires submitted for the Project.

Additional information concerning the public involvement process and summarized questionnaire results is located in Section 3 of the EA. A representative copy of the questionnaire provided for the Project is included in Appendix B of the EA.

Q. HAVE LCRA TSC AND AEP TEXAS COMMUNICATED WITH THE PUBLIC IN ADDITION TO THE OPEN HOUSE MEETING?

Yes. Following the open house, LCRA TSC and AEP Texas received questionnaires and other input from landowners located within the study area. LCRA TSC and AEP Texas also maintain Project websites (the AEP Texas website went live a few weeks before Application filing) to provide interested persons with updates about the Project.

A.

1 Q. DID LCRA TSC AND AEP TEXAS COMMUNICATE WITH LOCAL PUBLIC OFFICIALS PRIOR TO THE OPEN HOUSE MEETINGS?

A. Yes. In early 2018, LCRA and AEP Texas began communicating the need for the project, the ERCOT project review process, and explaining the CCN application and Commission approval processes with local officials. LCRA TSC and AEP Texas representatives attended and participated in meetings and discussions with local officials in February 2018.

7 Q. DOES UNIVERSITY LANDS OWN PROPERTY CROSSED BY A ROUTE OF THE PROJECT?

9 A. Yes. A significant portion of the study area for the Project is land owned by University
10 Lands (UL). UL manages the surface and mineral interests of 2.1 million acres of land
11 across nineteen counties in West Texas, including significant portions of Pecos County, for
12 the benefit of the Permanent University Fund.

13 Q. WHAT EFFORTS HAVE LCRA TSC AND AEP TEXAS MADE WITH RESPECT 14 TO UL?

A. Because of the significant land holdings of UL within the study area for the Project, LCRA
TSC and AEP Texas have consulted with UL regarding each route segment that crosses
UL. UL does not oppose the Project or the location of any of the segments proposed in the
Application across UL. See Exhibit SS-6, which is a letter from UL regarding the Project.

VIII. SUMMARY AND CONCLUSION

20 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. All of the proposed alternative routes presented in the Application comply with the factors in PURA § 37.056, PUC Substantive Rule 25.101(b)(3)(B), including the policy on prudent avoidance, the Commission's CCN application form, and the issues commonly included for consideration in the Commission's preliminary orders for CCN projects. LCRA TSC and AEP Texas are willing to build any of the 25 routes contained in the Application or any other reasonably forward-progressing route composed of the segments contained in the Application that meet the need for the Project.

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- 1 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
- 2 A. Yes.

Lower Colorado River Authority Project Experience

Provided by Sonya Strambler

PUBLIC UTILITY COMMISSION OF TEXAS

PROJEC

Bevo Substation Addition

Lehigh Power Transformer Addition

Hays Energy Coupling Capacitor Volotage Transformer Replacement

FPP Yard #2 Coupling Capacitor Volotage Transformer Replacement

Divide Switchyard Coupling Capacitor Volotage Transformer Replacement

Lytton Springs Substation Upgrade

San Marcos Substation Upgrade

Mason CTEC Breaker Monitoring

San Marcos Circuit Switcher Replacement & Circuit Breaker Panel Addition

GVTC Fiber Service Swap

Canyon Power Transformer Addition

Purgatory Substation Addition

Red Rock Substation Upgrade

Bertram Power Transformer Addition

Mobile Transformer Hookup Switch Substation Upgrade

Meter Upgrades Substation Upgrade

Sherwood Shores Circuit Breaker Addition

Circuit Breaker Replacement Phase IV Substation Upgrade

Altair-Garwood T546 TL Upg

Esperanza Substation Addition

Flatrock Substation Upgrade

Galloping Remediation Transmission Line Upgrade

Megastar Microwave Telecommunications Upgrade

Out-of-Band Mgmt System Telecom Upgrade

San Marcos Radio Site Telecom Upgrade

Tahitian Village Circuit Breaker Addition

Sec. 37.056. GRANT OR DENIAL OF CERTIFICATE.

- (a) The commission may approve an application and grant a certificate only if the commission finds that the certificate is necessary for the service, accommodation, convenience, or safety of the public.
 - (b) The commission may:
 - (1) grant the certificate as requested;
 - (2) grant the certificate for the construction of a portion of the requested system, facility, or extension or the partial exercise of the requested right or privilege; or
 - (3) refuse to grant the certificate.
 - (c) The commission shall grant each certificate on a nondiscriminatory basis after considering:
 - (1) the adequacy of existing service;
 - (2) the need for additional service;
 - (3) the effect of granting the certificate on the recipient of the certificate and any electric utility serving the proximate area; and
 - (4) other factors, such as:
 - (A) community values;
 - (B) recreational and park areas;
 - (C) historical and aesthetic values;
 - (D) environmental integrity;
 - (E) the probable improvement of service or lowering of cost to consumers in the area if the certificate is granted; and
 - (F) to the extent applicable, the effect of granting the certificate on the ability of this state to meet the goal established by Section 39.904(a) of this title.
- (d) The commission by rule shall establish criteria, in addition to the criteria described by Subsection (c), for granting a certificate for a transmission project that serves the ERCOT power region, that is not necessary to meet state or federal reliability standards, and that does not serve a competitive renewable energy zone. The criteria must include a comparison of the estimated cost of the transmission project and the estimated cost savings that may result from the transmission project. The commission shall include with its decision on an application for a

Public Utility Regulatory Act (PURA) § 37.056

certificate to which this subsection applies findings on the criteria.

Subchapter E. CERTIFICATION, LICENSING AND REGISTRATION.

§25.101. Certification Criteria.

- (a) **Definitions.** The following words and terms, when used in this section, shall have the following meanings unless the context clearly indicates otherwise:
 - (1) Construction and/or extension -- Shall not include the purchase or condemnation of real property for use as facility sites or right-of-way. Acquisition of right-of-way shall not be deemed to entitle an electric utility to the grant of a certificate of convenience and necessity without showing that the construction and/or extension is necessary for the service, accommodation, convenience, or safety of the public.
 - (2) Generating unit -- Any electric generating facility. This section does not apply to any generating unit that is less than ten megawatts and is built for experimental purposes only.
 - (3) Habitable structures -- Structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis. Habitable structures include, but are not limited to: single-family and multi-family dwellings and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, and schools.
 - (4) Municipal Power Agency (MPA) -- Agency or group created under Texas Utilities Code, Chapter 163 Joint Powers Agencies.
 - (5) Municipal Public Entity (MPE) -- A municipally owned utility (MOU) or a municipal power agency.
 - (6) Prudent avoidance -- The limiting of exposures to electric and magnetic fields that can be avoided with reasonable investments of money and effort.
 - (7) Tie line -- A facility to be interconnected to the Electric Reliability Council of Texas (ERCOT) transmission grid by a person, including an electric utility or MPE, that would enable additional power to be imported into or exported out of the ERCOT power grid.
- (b) Certificates of convenience and necessity for new service areas and facilities. Except for certificates granted under subsection (e) of this section, the commission may grant an application and issue a certificate only if it finds that the certificate is necessary for the service, accommodation, convenience, or safety of the public, and complies with the statutory requirements in the Public Utility Regulatory Act (PURA) §37.056. The commission may issue a certificate as applied for, or refuse to issue it, or issue it for the construction of a portion of the contemplated system or facility or extension thereof, or for the partial exercise only of the right or privilege. The commission shall render a decision approving or denying an application for a certificate within one year of the date of filing of a complete application for such a certificate, unless good cause is shown for exceeding that period. A certificate, or certificate amendment, is required for the following:
 - (1) Change in service area. Any certificate granted under this section shall not be construed to vest exclusive service or property rights in and to the area certificated.
 - (A) Uncontested applications: An application for a certificate under this paragraph shall be approved administratively within 80 days from the date of filing a complete application if:
 - (i) no motion to intervene has been filed or the application is uncontested;
 - (ii) all owners of land that is affected by the change in service area and all customers in the service area being changed have been given direct mail notice of the application; and
 - (iii) commission staff has determined that the application is complete and meets all applicable statutory criteria and filing requirements, including, but not limited to, the provision of proper notice of the application.
 - (B) Minor boundary changes or service area exceptions: Applications for minor boundary changes or service area exceptions shall be approved administratively within 45 days of the filing of the application provided that:

- (i) every utility whose certificated service area is affected agrees to the change;
- (ii) all customers within the affected area have given prior consent; and
- (iii) commission staff has determined that the application is complete and meets all applicable statutory criteria and filing requirements, including, but not limited to, the provision of proper notice of the application.
- (2) Generation facility.
 - (A) In a proceeding involving the purchase of an existing electric generating facility by an electric utility that operates solely outside of ERCOT, the commission shall issue a final order on a certificate for the facility not later than the 181st day after the date a request for the certificate is filed with the commission under PURA §37.058(b).
 - (B) In a proceeding involving a newly constructed generating facility by an electric utility that operates solely outside of ERCOT, the commission shall issue a final order on a certificate for the facility not later than the 366th day after the date a request for the certificate is filed with the commission under PURA §37.058(b).
- (3) Electric transmission line. All new electric transmission lines shall be reported to the commission in accordance with §25.83 of this title (relating to Transmission Construction Reports). This reporting requirement is also applicable to new electric transmission lines to be constructed by an MPE seeking to directly or indirectly construct, install, or extend a transmission facility outside of its applicable boundaries. For an MOU, the applicable boundaries are the municipal boundaries of the municipality that owns the MOU. For an MPA, the applicable boundaries are the municipal boundaries of the public entities participating in the MPA.
 - (A) Need:
 - Except as stated below, the following must be met for a transmission line in (i) the ERCOT power region. The applicant must present an economic costbenefit study that includes an analysis that shows that the levelized ERCOTwide annual production cost savings attributable to the proposed project are equal to or greater than the first-year annual revenue requirement of the proposed project of which the transmission line is a part. Indirect costs and benefits to the transmission system may be included in the cost-benefit study. The commission shall give great weight to such a study if it is conducted by the ERCOT independent system operator. This requirement also does not apply to an application for a transmission line that is necessary to meet state or federal reliability standards, including: a transmission line needed to interconnect a transmission service customer or end-use customer; or needed due to the requirements of any federal, state, county, or municipal government body or agency for purposes including, but not limited to, highway transportation, airport construction, public safety, or air or water quality.
 - (ii) For a transmission line not addressed by clause (i) of this subparagraph, the commission shall consider among other factors, the needs of the interconnected transmission systems to support a reliable and adequate network and to facilitate robust wholesale competition. The commission shall give great weight to:
 - (I) the recommendation of an organization that meets the requirement of PURA §39.151; and/or
 - (II) written documentation that the transmission line is needed to interconnect a transmission service customer or an end-use customer.

- (B) Routing: An application for a new transmission line shall address the criteria in PURA §37.056(c) and considering those criteria, engineering constraints, and costs, the line shall be routed to the extent reasonable to moderate the impact on the affected community and landowners unless grid reliability and security dictate otherwise. The following factors shall be considered in the selection of the utility's alternative routes unless a route is agreed to by the utility, the landowners whose property is crossed by the proposed line, and owners of land that contains a habitable structure within 300 feet of the centerline of a transmission project of 230 kV or less, or within 500 feet of the centerline of a transmission project greater than 230 kV, and otherwise conforms to the criteria in PURA §37.056(c):
 - (i) whether the routes parallel or utilize existing compatible rights-of-way for electric facilities, including the use of vacant positions on existing multiple-circuit transmission lines;
 - (ii) whether the routes parallel or utilize other existing compatible rights-ofway, including roads, highways, railroads, or telephone utility rights-ofway;
 - (iii) whether the routes parallel property lines or other natural or cultural features;
 - (iv) whether the routes conform with the policy of prudent avoidance.
- (C) Uncontested transmission lines: An application for a certificate for a transmission line shall be approved administratively within 80 days from the date of filing a complete application if:
 - (i) no motion to intervene has been filed or the application is uncontested; and
 - (ii) commission staff has determined that the application is complete and meets all applicable statutory criteria and filing requirements, including, but not limited to, the provision of proper notice of the application.
- (D) Projects deemed critical to reliability. Applications for transmission lines which have been formally designated by a PURA §39.151 organization as critical to the reliability of the system shall be considered by the commission on an expedited basis. The commission shall render a decision approving or denying an application for a certificate under this subparagraph within 180 days of the date of filing a complete application for such a certificate unless good cause is shown for extending that period.
- (4) Tie line. An application for a tie line must include a study of the tie line by the ERCOT independent system operator. The study shall include, at a minimum, an ERCOT-approved reliability assessment of the proposed tie line. If an independent system operator intends to conduct a study to evaluate a proposed tie line or intends to provide confidential information to another entity to permit the study of a proposed tie line, the independent system operator shall file notice with the commission at least 45 days prior to the commencement of such a study or the provision of such information. This paragraph does not apply to a facility that is in service on December 31, 2014.
- (c) **Projects or activities not requiring a certificate.** A certificate, or certificate amendment, is not required for the following:
 - (1) A contiguous extension of those facilities described in PURA §37.052;
 - (2) A new electric high voltage switching station, or substation;
 - The repair or reconstruction of a transmission facility due to emergencies. The repair or reconstruction of a transmission facility due to emergencies shall proceed without delay or prior approval of the commission and shall be reported to the commission in accordance with §25.83 of this title;
 - (4) The construction or upgrading of distribution facilities within the electric utility's service area;

- (5) Routine activities associated with transmission facilities that are conducted by transmission service providers. Nothing contained in the following subparagraphs should be construed as a limitation of the commission's authority as set forth in PURA. Any activity described in the following subparagraphs shall be reported to the commission in accordance with §25.83 of this title. The commission may require additional facts or call a public hearing thereon to determine whether a certificate of convenience and necessity is required. Routine activities are defined as follows:
 - (A) The modification or extension of an existing transmission line solely to provide service to a substation or metering point provided that:
 - (i) an extension to a substation or metering point does not exceed one mile; and
 - (ii) all landowners whose property is crossed by the transmission facilities have given prior written consent.
 - (B) The rebuilding, replacement, or respacing of structures along an existing route of the transmission line; upgrading to a higher voltage not greater than 230 kV; bundling of conductors or reconductoring of an existing transmission facility, provided that:
 - (i) no additional right-of-way is required; or
 - (ii) if additional right-of-way is required, all landowners of property crossed by the electric facilities have given prior written consent.
 - (C) The installation, on an existing transmission line, of an additional circuit not previously certificated, provided that:
 - (i) the additional circuit is not greater than 230 kV; and
 - (ii) all landowners whose property is crossed by the transmission facilities have given prior written consent.
 - (D) The relocation of all or part of an existing transmission facility due to a request for relocation, provided that:
 - (i) the relocation is to be done at the expense of the requesting party; and
 - (ii) the relocation is solely on a right-of-way provided by the requesting party.
 - (E) The relocation or alteration of all or part of an existing transmission facility to avoid or eliminate existing or impending encroachments, provided that all landowners of property crossed by the electric facilities have given prior written consent.
 - (F) The relocation, alteration, or reconstruction of a transmission facility due to the requirements of any federal, state, county, or municipal governmental body or agency for purposes including, but not limited to, highway transportation, airport construction, public safety, or air and water quality, provided that:
 - all landowners of property crossed by the electric facilities have given prior written consent; and
 - (ii) the relocation, alteration, or reconstruction is responsive to the governmental request.
- (6) Upgrades to an existing transmission line by an MPE that do not require any additional land, right-of-way, easement, or other property not owned by the MOU;
- (7) The construction, installation, or extension of a transmission facility by an MPE that is entirely located not more than 10 miles outside of an MOU's certificated service area that occurs before September 1, 2021; or
- (8) A transmission facility by an MOU placed in service after September 1, 2015, that is developed to interconnect a new natural gas generation facility to the ERCOT transmission grid and for which, on or before January 1, 2015, an MOU was contractually obligated to purchase at least 190 megawatts of capacity.

- (d) Standards of construction and operation. In determining standard practice, the commission shall be guided by the provisions of the American National Standards Institute, Incorporated, the National Electrical Safety Code, and such other codes and standards that are generally accepted by the industry, except as modified by this commission or by municipal regulations within their jurisdiction. Each electric utility shall construct, install, operate, and maintain its plant, structures, equipment, and lines in accordance with these standards, and in such manner to best accommodate the public, and to prevent interference with service furnished by other public utilities insofar as practical.
 - (1) The standards of construction shall apply to, but are not limited to, the construction of any new electric transmission facilities, rebuilding, upgrading, or relocation of existing electric transmission facilities.
 - (2) For electric transmission line construction requiring the acquisition of new rights-of-way, electric utilities must include in the easement agreement, at a minimum, a provision prohibiting the new construction of any above-ground structures within the right-of-way. New construction of structures shall not include necessary repairs to existing structures, farm or livestock facilities, storage barns, hunting structures, small personal storage sheds, or similar structures. Utilities may negotiate appropriate exceptions in instances where the electric utility is subject to a restrictive agreement being granted by a governmental agency or within the constraints of an industrial site. Any exception to this paragraph must meet all applicable requirements of the National Electrical Safety Code.
 - (3) Measures shall be applied when appropriate to mitigate the adverse impacts of the construction of any new electric transmission facilities, and the rebuilding, upgrading, or relocation of existing electric transmission facilities. Mitigation measures shall be adapted to the specifics of each project and may include such requirements as:
 - (A) selective clearing of the right-of-way to minimize the amount of flora and fauna disturbed;
 - (B) implementation of erosion control measures;
 - (C) reclamation of construction sites with native species of grasses, forbs, and shrubs; and
 - (D) returning site to its original contours and grades.
- (e) Certificates of convenience and necessity for existing service areas and facilities. For purposes of granting these certificates for those facilities and areas in which an electric utility was providing service on September 1, 1975, or was actively engaged in the construction, installation, extension, improvement of, or addition to any facility actually used or to be used in providing electric utility service on September 1, 1975, unless found by the commission to be otherwise, the following provisions shall prevail for certification purposes:
 - The electrical generation facilities and service area boundary of an electric utility having such facilities in place or being actively engaged in the construction, installation, extension, improvement of, or addition to such facilities or the electric utility's system as of September 1, 1975, shall be limited, unless otherwise provided, to the facilities and real property on which the facilities were actually located, used, or dedicated as of September 1, 1975.
 - (2) The transmission facilities and service area boundary of an electric utility having such facilities in place or being actively engaged in the construction, installation, extension, improvement of, or addition to such facilities or the electric utility's system as of September 1, 1975, shall be, unless otherwise provided, the facilities and a corridor extending 100 feet on either side of said transmission facilities in place, used or dedicated as of September 1, 1975.
 - (3) The facilities and service area boundary for the following types of electric utilities providing distribution or collection service to any area, or actively engaged in the construction, installation, extension, improvement of, or addition to such facilities or the electric utility's system as of September 1, 1975, shall be limited, unless otherwise found by the commission, to the facilities and the area which lie within 200 feet of any point along a distribution line, which is specifically deemed to include service drop lines, for electrical utilities.

- (f) Transferability of certificates. Any certificate granted under this section is not transferable without approval of the commission and shall continue in force until further order of the commission.
- (g) Certification forms. All applications for certificates of convenience and necessity shall be filed on commission-prescribed forms so that the granting of certificates, both contested and uncontested, may be expedited. Forms may be obtained from Central Records.
- (h) Commission authority. Nothing in this section is intended to limit the commission's authority to recommend or direct the construction of transmission under PURA §§35.005, 36.008, or 39.203(e).

§22.52. Notice in Licensing Proceedings.

- (a) Notice in electric licensing proceedings. In all electric licensing proceedings except minor boundary changes, the applicant shall give notice in the following ways:
 - (1) Applicant shall publish notice once of the applicant's intent to secure a certificate of convenience and necessity in a newspaper having general circulation in the county or counties where a certificate of convenience and necessity is being requested, no later than the week after the application is filed with the commission. This notice shall identify the commission's docket number and the style assigned to the case by Central Records. In electric transmission line cases, the applicant shall obtain the docket number and style no earlier than 25 days prior to making the application by filing a preliminary pleading requesting a docket assignment. The notice shall identify in general terms the type of facility if applicable, and the estimated expense associated with the project. The notice shall describe all routes without designating a preferred route or otherwise suggesting that a particular route is more or less likely to be selected than one of the other routes.
 - (A) The notice shall include all the information required by the standard format established by the commission for published notice in electric licensing proceedings. The notice shall state the date established for the deadline for intervention in the proceeding (date 45 days after the date the formal application was filed with the commission; or date 30 days after the date the formal application was filed with the commission for an application for certificate of convenience and necessity filed under PURA §39.203(e)) and that a letter requesting intervention should be received by the commission by that date.
 - (B) The notice shall describe in clear, precise language the geographic area for which the certificate is being requested and the location of all alternative routes of the proposed facility. This description shall refer to area landmarks, including but not limited to geographic landmarks, municipal and county boundary lines, streets, roads, highways, railroad tracks, and any other readily identifiable points of reference, unless no such references exist for the geographic area. In addition, the notice shall include a map that identifies all of the alternative locations of the proposed routes and all major roads, transmission lines, and other features of significance to the areas that are used in the utility's written notice description.
 - (C) The notice shall state a location where a detailed routing map may be reviewed. The map shall clearly and conspicuously illustrate the location of the area for which the certificate is being requested including all the alternative locations of the proposed routes, and shall reflect area landmarks, including but not limited to geographic landmarks, municipal and county boundary lines, streets, roads, highways, railroad tracks, and any other readily identifiable points of reference, unless no such references exist for the geographic area.
 - (D) Proof of publication of notice shall be in the form of a publisher's affidavit which shall specify the newspaper(s) in which the notice was published, the county or counties in which the newspaper(s) is or are of general circulation, the dates upon which the notice was published, and a copy of the notice as published. Proof of publication shall be submitted to the commission as soon as available.
 - (E) The applicant shall provide a copy of each environmental impact study and/or assessment for the project to the Texas Parks and Wildlife Department (TPWD) for its review within seven days of filing the application. Proof of submission of the information to TPWD shall be provided in the form of an affidavit to the commission, which shall specify the date the information was mailed or otherwise provided to TPWD, and shall provide a copy of the cover letter or other documentation that confirms that the information was provided to TPWD.
 - (2) Applicant shall, upon filing an application, also mail notice of its application to municipalities within five miles of the requested territory or facility, neighboring utilities providing the same utility service within five miles of the requested territory or facility, the county government(s)

of all counties in which any portion of the proposed facility or requested territory is located, and the Department of Defense Siting Clearinghouse. In addition, the applicant shall, upon filing the application, serve the notice on the Office of Public Utility Counsel using a method specified in §22.74(b) of this title (relating to Service of Pleadings and Documents). The notice shall contain the information as set out in paragraph (1) of this subsection and a map as described in paragraph (1)(C) of this subsection. An affidavit attesting to the provision of notice to municipalities, utilities, counties, the Department of Defense Siting Clearinghouse, and the Office of Public Utility Counsel shall specify the dates of the provision of notice and the identity of the individual municipalities, utilities, and counties to which such notice was provided. Before final approval of any modification in the applicant's proposed route(s), applicant shall provide notice as required under this paragraph to municipalities, utilities, and counties affected by the modification which have not previously received notice. The notice of modification shall state such entities will have 20 days to intervene.

- (3) Applicant shall, on the date it files an application, mail notice of its application to the owners of land, as stated on the current county tax roll(s), who would be directly affected by the requested certificate. For purposes of this paragraph, land is directly affected if an easement or other property interest would be obtained over all or any portion of it, or if it contains a habitable structure that would be within 300 feet of the centerline of a transmission project of 230kV or less, or within 500 feet of the centerline of a transmission project greater than 230kV.
 - (A) The notice must contain all information required in paragraph (1) of this subsection and shall include all the information required by the standard notice letter to landowners prescribed by the commission. The commission's docket number pertaining to the application must be stated in all notices. The notice must also include a copy of the "Landowners and Transmission Line Cases at the PUC" brochure prescribed by the commission.
 - (B) The notice must include a map as described in paragraph (1)(C) of this subsection.
 - (C) Before final approval of any modification in the applicant's proposed route(s), applicant shall provide notice as required under subparagraphs (A) and (B) of this paragraph to all directly affected landowners who have not already received such notice.
 - (D) Proof of notice may be established by an affidavit affirming that the applicant sent notice by first-class mail to each of the persons listed as an owner of directly affected land on the current county tax roll(s). The proof of notice shall include a list of all landowners to whom notice was sent and a statement of whether any formal contact related to the proceeding between the utility and the landowner other than the notice has occurred. This proof of notice shall be filed with the commission no later than 20 days after the filing of the application.
 - (E) Upon the filing of proof of notice as described in subparagraph (D) of this paragraph, the lack of actual notice to any individual landowner will not in and of itself support a finding that the requirements of this paragraph have not been satisfied. If, however, the utility finds that an owner of directly affected land has not received notice, it shall immediately advise the commission by written pleading and shall provide notice to such landowner(s) by priority mail, with delivery confirmation, in the same form described in subparagraphs (A) and (B) of this paragraph, except that the notice shall state that the person has fifteen days from the date of delivery to intervene. The utility shall immediately file a supplemental affidavit of notice with the commission.
- (4) The utility shall hold at least one public meeting prior to the filing of its licensing application if 25 or more persons would be entitled to receive direct mail notice of the application. Direct mail notice of the public meeting shall be sent by first-class mail to each of the persons listed on the current county tax rolls as an owner of land within 300 feet of the centerline of a transmission project of 230kV or less, or within 500 feet of the centerline of a transmission project greater than 230kV. The utility shall also provide written notice to the Department of Defense Siting Clearinghouse of the public meeting. In the notice for the public meeting, at the public meeting, and in other communications with a potentially affected person, the utility

- shall not describe routes as preferred routes or otherwise suggest that a particular route is more or less likely to be selected than one of the other routes. In the event that no public meeting is held, the utility shall provide written notice to the Department of Defense Siting Clearinghouse of the planned filing of an application prior to completion of the routing study.
- (5) Failure to provide notice in accordance with this section shall be cause for day-for-day extension of deadlines for intervention and for commission action on the application.
- (6) Upon entry of a final, appealable order by the commission approving an application, the utility shall provide notice to all owners of land who previously received direct notice. Proof of notice under this subsection shall be provided to the commission's staff.
 - (A) If the owner's land is directly affected by the approved route, the notice shall consist of a copy of the final order.
 - (B) If the owner's land is not directly affected by the approved route, the notice shall consist of a brief statement that the land is no longer the subject of a pending proceeding and will not be directly affected by the facility.
- (7) All notices of an applicant's intent to secure a certificate of convenience and necessity whether provided by publication or direct mail shall include the following language: "All routes and route segments included in this notice are available for selection and approval by the Public Utility Commission of Texas."
- (b) Notice in telephone licensing proceedings. In all telephone licensing proceedings, except minor boundary changes, applications for a certificate of operating authority, or applications for a service provider certificate of operating authority, the applicant shall give notice in the following ways:
 - (1)Applicants shall publish in a newspaper having general circulation in the county or counties where a certificate of convenience and necessity is being requested, once each week for two consecutive weeks, beginning the week after the application is filed, notice of the applicant's intent to secure a certificate of convenience and necessity. This notice shall identify in general terms the types of facilities, if applicable, the area for which the certificate is being requested, and the estimated expense associated with the project. Whenever possible, the notice should state the established intervention deadline. The notice shall also include the following statement: "Persons with questions about this project should contact (name of utility contact) at (utility contact telephone number). Persons who wish to intervene in the proceeding or comment upon action sought, should contact the Public Utility Commission, P.O. Box 13326, Austin, Texas 78711-3326, or call the Public Utility Commission at (512) 936-7120 or (888) 782-8477. Hearing- and speech-impaired individuals with text telephones (TTY) may contact the commission at (512) 936-7136. The deadline for intervention in the proceeding is (date 70 days after the date the application was filed with the commission) and you must send a letter requesting intervention to the commission which is received by that date." Proof of publication of notice shall be in the form of a publisher's affidavit, which shall specify the newspaper or newspapers in which the notice was published; the county or counties in which the newspaper or newspapers is or are of general circulation; the dates upon which the notice was published and a copy of the notice as published. Proof of publication shall be submitted to the commission as soon as available.
 - (2) Applicant shall also mail notice of its application, which shall contain the information as set out in paragraph (1) of this subsection, to cities and to neighboring utilities providing the same service within five miles of the requested territory or facility. Applicant shall also provide notice to the county government of all counties in which any portion of the proposed facility or territory is located. The notice provided to county governments shall be identical to that provided to cities and to neighboring utilities. An affidavit attesting to the provision of notice to counties shall specify the dates of the provision of notice and the identity of the individual counties to which such notice was provided.
 - (3) Failure to provide notice in accordance with this section shall be cause for day-for-day extension of deadlines for intervention.

PUC Docket No. 48787
Joint Application of LCRA Transmission Services and
AEP Texas Inc. to Amend Their Certificates of Convenience and
Necessity for the Bakersfield to Solstice AEP Texas
345-kV Transmission Line in Pecos County, Texas

Application Questions Sponsors

				WITNESSES		
CCN APPLICATION QUESTION		STRAMBLER LCRA	HARRIS AEP TEXAS	MEAUX POWER	SYMANK POWER	KAWAKAMI ONCOR
1.	Applicant (Utility) Name	CO-SPONSOR	CO-SPONSOR	-	-	-
2.	Ownership or investment interest	CO-SPONSOR	CO-SPONSOR	-	-	-
3.	Person to Contact	CO-SPONSOR	CO-SPONSOR	-	-	-
4.	Project Description	CO-SPONSOR	CO-SPONSOR		CO-SPONSOR	_
5.	Conductor and Structures	-	-	-	SPONSOR	-
6.	Right-of-way	-		CO-SPONSOR	CO-SPONSOR	<u> </u>
7.	Substations or Switching Stations	-	-	-	SPONSOR	-
8.	Estimated Schedule	CO-SPONSOR	CO-SPONSOR	-	-	
9.	Counties	CO-SPONSOR	CO-SPONSOR	-	<u>-</u>	-
10.	Municipalities	CO-SPONSOR	CO-SPONSOR	-	-	
11.	Affected Utilities	CO-SPONSOR	CO-SPONSOR	-	-	-
12.	Financing	CO-SPONSOR	CO-SPONSOR	_	-	-
13.	Estimated Costs			-	SPONSOR	
14.	Need for the Proposed Project	-	-	-	CO-SPONSOR	CO-SPONSOR
15.	Alternatives to Project	-	-	-	_	SPONSOR
16.	Schematic or Diagram	-	-	-		SPONSOR
17.	Routing Study	CO-SPONSOR	CO-SPONSOR	CO-SPONSOR	CO-SPONSOR	-
18.	Public Meeting or Public Open House	CO-SPONSOR	CO-SPONSOR	CO-SPONSOR	-	-
19.	Routing Maps	CO-SPONSOR	CO-SPONSOR	CO-SPONSOR	-	-
20.	Permits	-	-	CO-SPONSOR	CO-SPONSOR	-
21.	Habitable structures	-	-	SPONSOR	-	-
22.	Electronic Installations	<u>-</u>	-	SPONSOR	-	-
23.	Airstrips	-	-	CO-SPONSOR	CO-SPONSOR	-
24.	Irrigation Systems	1	-	SPONSOR	-	-
25.	Notice	CO-SPONSOR	CO-SPONSOR	-	-	-
26.	Parks and Recreation Areas	-	-	SPONSOR	-	-
27.	Historical and Archeological Sites	-	-	SPONSOR	-	-
28.	Coastal Management Program		-	SPONSOR	-	-
29.	Environmental Impact	CO-SPONSOR	CO-SPONSOR	CO-SPONSOR	-	
30.	Affidavit	CO-SPONSOR	CO-SPONSOR	-	-	

PUC Docket No. 48787
Joint Application of LCRA Transmission Services and
AEP Texas Inc. to Amend Their Certificates of Convenience and
Necessity for the Bakersfield to Solstice AEP Texas
345-kV Transmission Line in Pecos County, Texas

Application Attachment Sponsors

		WITNESSES					
CCN APPLICATION ATTACHMENTS		STRAMBLER LCRA	HARRIS AEP TEXAS	MEAUX POWER	SYMANK POWER	KAWAKAMI ONCOR	
1	Environmental Assessment and Route Analysis	CO-SPONSOR	CO-SPONSOR	CO-SPONSOR	CO-SPONSOR		
2a-2g	ERCOT materials and correspondence	-	-	-	-	SPONSOR	
3	Estimated Costs of Alternative Routes and Substations	-	-	_	SPONSOR	-	
4	Property Ownership & Habitable Structure Maps (Sheets 1-10)	CO-SPONSOR	CO-SPONSOR	-	-	-	
5	Notice - Landowner Letter (Letter, Map, Route Descriptions, PUC Landowner Brochure, Protest/Comment Form and Intervenor Form)	CO-SPONSOR	CO-SPONSOR	-	-	- .	
6	Notice – Landowner List	CO-SPONSOR	CO-SPONSOR	-	_	-	
7	Notice – Utilities/Public Officials/ISDs/ State & Fed./Railroad/Pipeline/DoD/ Office of Public Utility Counsel Letter	CO-SPONSOR	CO-SPONSOR	-		-	
8	Notice - Utilities/Public Officials/ISDs/ State & Fed./Railroad/Pipeline/DoD/ Office of Public Utility Counsel List	CO-SPONSOR	CO-SPONSOR	-	-	-	
9	Notice – Newspaper Publication	CO-SPONSOR	CO-SPONSOR	-	-	-	
10	TPWD – Notice	CO-SPONSOR	CO-SPONSOR	-	-	-	
11	Application Affidavit	CO-SPONSOR	CO-SPONSOR	-		-	



Richard Brantley Senior Vice President, Operations P.O. Box 553 Midland, TX 79702-0553 Tel. (432) 684-4404 Fax: (432) 683-8780

October 24, 2018

Ms. Sonya Strambler LCRA Transmission Services Corporation 3505 Montopolis Drive, Building D Austin, Texas 78744

Re: Joint Application of LCRA Transmission Services Corporation and AEP Texas Inc. to Amend Their Certificates of Convenience and Necessity for the Bakersfield to Solstice 345-kV Transmission Line in Pecos County, Texas

Dear Ms. Strambler:

University Lands manages the surface and mineral interests of 2.1 million acres of land across nineteen counties in West Texas for the benefit of the Permanent University Fund (PUF) and the Available University Fund (AUF). Over the past year, University Lands coordinated with LCRA Transmission Services Corporation and AEP Texas Inc. (the "utilities") regarding a proposed 345 kV transmission line within Pecos County, Texas. University Lands understands that the utilities will be filing an application at the Public Utility Commission of Texas (PUC) in the coming weeks that will include one or more route options for the proposed project that cross University Lands property.

This letter is to inform all who may be involved in that application, including the PUC, that University Lands has reviewed each segment of the project that is proposed across University Lands property and consents and agrees with the location of the transmission line on any of those segments should they be included in a route approved by the PUC.

Pursuant to its mission for the benefit of the PUF and AUF, should any route segment approved for the proposed project cross property owned by University Lands, the utilities will compensate University Lands pursuant to University Lands' published schedule for transmission lines of the voltage proposed for the project.

Sincerely,

James R. Buice Manager, ROW

PUC DOCKET NO. 48787

JOINT APPLICATION OF LCRA	§	BEFORE THE
TRANSMISSION SERVICE	§	
CORPORATION AND AEP TEXAS	§	
INC. TO AMEND THEIR	§	PUBLIC UTILITY COMMISSION
CERTIFICATES OF CONVENIENCE	§	
AND NECESSITY FOR THE	§	
PROPOSED BAKERSFIELD TO	§	OF TEXAS
SOLSTICE 345-kV TRANSMISSION	§	
LINE PROJECT IN PECOS COUNTY,	§	
TEXAS	_	

DIRECT TESTIMONY

OF

BRENT W. HARRIS

ON BEHALF OF APPLICANTS LCRA TRANSMISSION SERVICES CORPORATION AND AEP TEXAS INC.

NOVEMBER 2018

PUC DOCKET NO. 48787 DIRECT TESTIMONY OF BRENT W. HARRIS

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EXHIBITS

Exhibit BWH-1: 16 TAC § 22.52

Exhibit BWH-2: PURA § 37.056

Exhibit BWH-3: 16 TAC § 25.101

I. INTRODUCTION

1	O.	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
1	♥.	

- 2 A. My name is Brent W. Harris. My business address is 501 South Boston, Tulsa,
- 3 Oklahoma 74103.

4 Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

- 5 A. I am employed by American Electric Power Service Company (AEPSC), a wholly-
- 6 owned subsidiary of American Electric Power Company, Inc., as Project Manager
- 7 Principal in the Transmission Services Department for ERCOT. AEPSC provides
- 8 engineering, construction, and project management services to AEP Texas Inc. (AEP
- 9 Texas).

10 Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL

- 11 QUALIFICATIONS AND BUSINESS EXPERIENCE.
- 12 A. I received a Bachelor of Technology Degree from Northeastern State University in
- 2006 and a Master of Arts Degree in Organizational Dynamics/Project Management
- from the University of Oklahoma in 2011. I obtained my Project Management
- Professional Certification in 2015. I have approximately 10 years of experience in
- 16 contracting, design, and construction of transmission facilities for electric utilities, the
- last six years as a project manager.

18 Q. PLEASE DESCRIBE YOUR JOB RESPONSIBILITIES, PARTICULARLY AS

- 19 THEY APPLY TO THIS PROJECT.
- 20 A. I am the project manager for AEP Texas for the transmission project presented in this
- 21 Docket No. 48787: Joint Application of LCRA Transmission Services Corporation and
- 22 AEP Texas Inc. to Amend Their Certificates of Convenience and Necessity for the
- 23 Proposed Bakersfield to Solstice 345-kV Double-Circuit Transmission Line Project in
- 24 Pecos County, Texas (Application). My job responsibilities include overseeing and
- 25 managing transmission system projects from inception to completion. These
- 26 responsibilities involve receiving the capital project proposal from AEPSC's
- transmission planning organization for review and final scope development through

project funding. I coordinate a project team of planners, design engineers, case managers, environmental specialists, construction personnel, right-of-way agents, and contractors to see the project through engineering, procurement, construction, energization, and project closeout. My job responsibilities also include overseeing project budgets and schedules.

When a Certificate of Convenience and Necessity (CCN) application is required, as in this docket, my job responsibilities include coordinating development and filing of the application. In this specific Application part of my assignment is to coordinate the development of the Application and the filing/processing of the joint Application between AEP Texas and LCRA Transmission Services Corporation (LCRA TSC) (jointly, Applicants) that will be submitted to the Public Utility Commission of Texas (Commission or PUC) and then later the coordination of construction activities as necessary with LCRA TSC for this new transmission line project.

15 Q. HAVE YOU PREVIOUSLY PERFORMED WORK RELATED TO 16 TRANSMISSION LINE ADMINISTRATIVE PROCEEDINGS?

- 17 A. Yes. I have prepared information submitted to the PUC in the monthly construction
 18 progress reports for projects that do not require a CCN amendment, and served as the
 19 project manager for the Application of AEP Texas Inc. to Amend a Certificate of
 20 Convenience and Necessity for the Proposed Solstice to Roserock POI 138-kV
 21 Transmission Line in Pecos County, Texas, PUC Docket No 47187. In PUC Docket
 22 No. 47187 there was no intervention or request for hearing and the CCN application
 23 was administratively approved by the PUC.
- Q. HAVE YOU PRESENTED TESTIMONY TO THE COMMISSION OR ANY OTHER REGULATORY BODY BEFORE?
- 26 A. No.

1 2

Q. HAVE YOU REVIEWED THE ROUTE EVALUATION, ROUTE SELECTION,
PROJECT COST ESTIMATES, CONDUCTOR AND STRUCTURE
SELECTION, RIGHT OF WAY WIDTHS, PUBLIC NOTICE PROVISIONS,

1 AND PLANS FOR ENGINEERING DESIGN AND COMPLIANCE

2 DISCUSSED BY OTHER WITNESSES FOR THE APPLICANTS?

- 3 A. Yes, I have reviewed the Applicants witnesses' testimony on those issues and agree
- 4 with their statements and conclusions.

II. PURPOSE OF TESTIMONY

5 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

- 6 A. The purpose of my testimony is to discuss specific aspects of AEP Texas' role in the
- 7 proposed Bakersfield to Solstice 345-kV double-circuit transmission line through
- Pecos County, Texas (Project) to be constructed by the Applicants. In my testimony, I
- 9 will address certain aspects of the Application including: (i) the description of AEP
- Texas and its involvement and financing of its portion of the Project; (ii) AEP Texas'
- involvement in the Application preparation; and (iii) AEP Texas' construction and
- right-of-way (ROW) acquisition schedule. The Application is publicly available at the
- 13 Commission and will be offered into evidence by the Applicants as an exhibit in this
- 14 proceeding.

15 Q. WHAT PORTIONS OF THE APPLICATION DO YOU SPONSOR?

- 16 A. I am jointly sponsoring the responses to Questions No. 1 through 4, 8 through 12, 17
- through 19, 25, 29, and 30 and Application Attachments 1 (Section 1), 4, 5, 6, 7, 8, 9,
- 18 10, and 11.
- 19 O. WERE YOUR TESTIMONY AND THE INFORMATION YOU ARE
- 20 SPONSORING PREPARED BY YOU OR BY KNOWLEDGEABLE PERSONS
- 21 UPON WHOSE EXPERTISE, JUDGMENT AND OPINIONS YOU RELY IN
- 22 **PERFORMING YOUR DUTIES?**
- 23 A. Yes.

- Q. IS THE INFORMATION CONTAINED IN YOUR TESTIMONY AND THAT
- 2 YOU ARE SPONSORING TRUE AND CORRECT TO THE BEST OF YOUR
- 3 KNOWLEDGE AND BELIEF?
- 4 A. Yes.

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III. PROJECT DESCRIPTION

5 Q. PLEASE DESCRIBE THE PROJECT.

The Project is located in Pecos County, Texas. The two endpoints for the Project are the LCRA TSC Bakersfield Station located approximately 38 miles northeast of the city of Fort Stockton, approximately six miles north of Interstate Highway 10 and approximately 1 mile west of Farm to Market Road 1901, and the AEP Texas Solstice Switch Station located approximately 29 miles west of Fort Stockton on the north side of Interstate Highway 10 near Hovey Road. The LCRA TSC Bakersfield Station is a 345-kV station constructed as part of the McCamey CREZ Zone build out and provides connection to CREZ 345-kV transmission lines and renewable projects in the area. The AEP Texas Solstice Switch Station is currently a 138-kV station and will be expanded to a 345-kV station yard adjacent to the 138-kV station. The new 345-kV station will be interconnected to the 138-kV station through two 600 MVA 345/138-kV autotransformers and a 50 Mvar reactor. The new 345-kV station will also provide for the termination of the two new 345-kV transmission line circuits from the LCRA TSC Bakersfield Station and for the two new 345-kV circuits from the Oncor Electric Delivery Company LLC (Oncor) Sand Lake Switch station, which are the subject of a separate CCN application in Docket No. 48785. A second 50 Mvar reactor and associated termination and operation equipment will be added for voltage control to accommodate the new transmission line being adding from the Oncor Sand Lake Switch station.

LCRA TSC and AEP Texas will each own 50 percent of the Project. LCRA TSC will construct, own, operate, and maintain the eastern half of the transmission line connecting to LCRA TSC's Bakersfield Station (including all necessary construction within the Bakersfield Station to terminate and operate the new transmission line) and

AEP Texas will construct, own, operate, and maintain the western half of the transmission line connecting to the expanded AEP Texas Solstice Switch Station (including all necessary construction to expand the station for the connection and operation of the new 345-kV transmission line circuits, the new autotransformers that will connect to the existing 138-kV Solstice Switch Station, and the 50 Mvar reactor). The structure closest to the middle of the approved route will be a dead-end structure owned by AEP Texas. LCRA TSC's ownership will extend from the LCRA TSC Bakersfield Station to the west to the point at which its conductors connect to AEP Texas' dead-end structure. This specific change in ownership will be determined and agreed to as part of finalizing the final route selected by the Commission. The Project will be approximately 68 to 92 miles in length, depending on the route approved by the Commission.

13 Q. IS THE PROJECT ONE OF SEVERAL RELATED PROJECTS FOR WHICH

14 CCNS ARE BEING FILED SIMULTANEOUSLY BECAUSE THEY HAVE

COMMON ENDPOINTS?

16 A. Yes. AEP Texas, LCRA TSC, and Oncor have simultaneously filed two CCN
17 applications: 1) the Project in this case, and 2) the joint AEP Texas/Oncor Sand Lake
18 to Solstice 345-kV double-circuit transmission line in Docket No. 48785. Because these
19 two projects serve a common need and share a common endpoint at Solstice Switch
20 Station, AEP Texas, LCRA TSC, and Oncor are requesting consolidation of the two
21 CCN proceedings.

IV. DESCRIPTION OF AEP TEXAS

22 Q. PLEASE DESCRIBE AEP TEXAS.

A. AEP Texas is connected to and serves more than one million electric consumers in the deregulated Texas marketplace. As an energy delivery wires company, AEP Texas delivers electricity safely and reliably to homes, businesses, and industry across its nearly 100,000 square mile service territory in south and west Texas. AEP Texas uses the services of AEP Transmission, which is a division of AEPSC, to build and operate its transmission network. AEP Transmission builds and operates transmission

infrastructure for the AEP Operating Companies that distribute electricity to businesses and homes. AEP Transmission now operates more than 40,000 miles of transmission network. AEP Texas is the certificated co-applicant in this proceeding and AEP Transmission will construct, operate, and maintain the transmission facilities associated with AEP Texas' portion of the Project following approval by the Commission.

V. PROJECT FINANCING

8 Q. HOW WILL AEP TEXAS FINANCE THE PROJECT?

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9 A. AEP Texas' 50 percent share of the Project will be financed from short-term borrowings and owner equity.

VI. PROJECT SCHEDULE

12 Q. WHAT IS AEP TEXAS' SCHEDULE FOR THE PROJECT?

13 A. The following table indicates the projected dates for certain Project milestones:

Estimated Dates of:	Start	Completion
Right-of-way Acquisition	May 2019	October 2019
Engineering and Design	May 2019	December 2019
Material and Equipment Procurement	June 2019	February 2020
Construction of Facilities	January 2020	December 2020
Energize Facilities		December 2020

VII. PUBLIC MEETING

- 14 Q. PLEASE DESCRIBE AEP TEXAS' INVOLVEMENT IN THE PUBLIC 15 PARTICIPATION MEETING THAT WAS HELD FOR THE PROJECT.
- 16 A. The Applicants, with the assistance of POWER Engineers, Inc. (POWER), held an open-house meeting to solicit public input about the proposed Project. Public

involvement contributed to the evaluation of issues and concerns and to the selection of route segments for the Project. Ms. Sonya Strambler, on behalf of the Applicants, will provide greater detail in her direct testimony concerning how the Applicants obtained input from the public prior to the filing of the Application and the Applicants' compliance with 16 TAC § 22.52(a)(4) (see Exhibit BWH-1).

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VIII. PURA AND PUC RULES ROUTING CRITERIA

- 6 Q. DO THE APPLICATION AND THE ROUTES THEREIN COMPLY WITH 7 THE REQUIREMENTS OF PURA AND THE PUC'S SUBSTANTIVE RULES?
- A. Yes. AEP Texas has been involved extensively in the development of the Application and the routes presented in the Application. The direct testimony of Ms. Strambler and Ms. Lisa Meaux further discuss the specific details regarding regulatory compliance.
- Q. WHAT ROUTE DID THE APPLICANTS SELECT AS THE ROUTE THEY
 BELIEVE BEST ADDRESSES THE REQUIREMENTS OF PURA AND THE
 PUC'S SUBSTANTIVE RULES FOR THE PROJECT?
- 14 A. The Applicants considered all of the certification criteria in PURA and the PUC Substantive Rules, input from the public, the data from POWER regarding the project, 15 engineering and construction constraints, and the estimated cost for the alternative 16 17 routes. In addition to considering POWER's environmental and land use evaluation of 18 the alternative routes, the Applicants also evaluated each route from a cost and 19 engineering design and construction perspective. As a result of this evaluation, AEP Texas and LCRA TSC identified Route 24 as the route that the Applicants believe best 20 21 addresses the requirements of PURA (see Exhibit BWH-2) and the PUC's Substantive 22 Rules (see Exhibit BWH-3) regarding certification criteria. Ms. Strambler, on behalf of 23 the Applicants, provides additional detail on this identification in her direct testimony.

IX. SUMMARY AND CONCLUSION

1 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

- A. The Applicants have reasonably used the information gathered from the EA and the public meetings to create a sufficient number of geographically diverse routes to address or mitigate concerns that landowners voiced at the public meetings. The estimated schedule will allow the transmission line to be completed in a timely manner. The Applicants have proposed alternative routes that are acceptable and comply with the Commission's routing criteria in 16 TAC § 25.101 (see Exhibit BWH-3) and the
- 9 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

CCN factors listed in PURA § 37.056 (see Exhibit BWH-2).

10 A. Yes, it does.

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Subchapter D. NOTICE.

§22.52. Notice in Licensing Proceedings.

- (a) **Notice in electric licensing proceedings**. In all electric licensing proceedings except minor boundary changes, the applicant shall give notice in the following ways:
 - Applicant shall publish notice once of the applicant's intent to secure a certificate of convenience and necessity in a newspaper having general circulation in the county or counties where a certificate of convenience and necessity is being requested, no later than the week after the application is filed with the commission. This notice shall identify the commission's docket number and the style assigned to the case by Central Records. In electric transmission line cases, the applicant shall obtain the docket number and style no earlier than 25 days prior to making the application by filing a preliminary pleading requesting a docket assignment. The notice shall identify in general terms the type of facility if applicable, and the estimated expense associated with the project. The notice shall describe all routes without designating a preferred route or otherwise suggesting that a particular route is more or less likely to be selected than one of the other routes.
 - (A) The notice shall include all the information required by the standard format established by the commission for published notice in electric licensing proceedings. The notice shall state the date established for the deadline for intervention in the proceeding (date 45 days after the date the formal application was filed with the commission; or date 30 days after the date the formal application was filed with the commission for an application for certificate of convenience and necessity filed under PURA §39.203(e)) and that a letter requesting intervention should be received by the commission by that date.
 - (B) The notice shall describe in clear, precise language the geographic area for which the certificate is being requested and the location of all alternative routes of the proposed facility. This description shall refer to area landmarks, including but not limited to geographic landmarks, municipal and county boundary lines, streets, roads, highways, railroad tracks, and any other readily identifiable points of reference, unless no such references exist for the geographic area. In addition, the notice shall include a map that identifies all of the alternative locations of the proposed routes and all major roads, transmission lines, and other features of significance to the areas that are used in the utility's written notice description.
 - (C) The notice shall state a location where a detailed routing map may be reviewed. The map shall clearly and conspicuously illustrate the location of the area for which the certificate is being requested including all the alternative locations of the proposed routes, and shall reflect area landmarks, including but not limited to geographic landmarks, municipal and county boundary lines, streets, roads, highways, railroad tracks, and any other readily identifiable points of reference, unless no such references exist for the geographic area.
 - (D) Proof of publication of notice shall be in the form of a publisher's affidavit which shall specify the newspaper(s) in which the notice was published, the county or counties in which the newspaper(s) is or are of general circulation, the dates upon which the notice was published, and a copy of the notice as published. Proof of publication shall be submitted to the commission as soon as available.
 - (E) The applicant shall provide a copy of each environmental impact study and/or assessment for the project to the Texas Parks and Wildlife Department (TPWD) for its review within seven days of filing the application. Proof of submission of the information to TPWD shall be provided in the form of an affidavit to the commission, which shall specify the date the information was mailed or otherwise provided to TPWD, and shall provide a copy of the cover letter or other documentation that confirms that the information was provided to TPWD.
 - (2) Applicant shall, upon filing an application, also mail notice of its application to municipalities within five miles of the requested territory or facility, neighboring utilities providing the same utility service within five miles of the requested territory or facility, the county government(s)

Subchapter D. NOTICE.

of all counties in which any portion of the proposed facility or requested territory is located, and the Department of Defense Siting Clearinghouse. In addition, the applicant shall, upon filing the application, serve the notice on the Office of Public Utility Counsel using a method specified in §22.74(b) of this title (relating to Service of Pleadings and Documents). The notice shall contain the information as set out in paragraph (1) of this subsection and a map as described in paragraph (1)(C) of this subsection. An affidavit attesting to the provision of notice to municipalities, utilities, counties, the Department of Defense Siting Clearinghouse, and the Office of Public Utility Counsel shall specify the dates of the provision of notice and the identity of the individual municipalities, utilities, and counties to which such notice was provided. Before final approval of any modification in the applicant's proposed route(s), applicant shall provide notice as required under this paragraph to municipalities, utilities, and counties affected by the modification which have not previously received notice. The notice of modification shall state such entities will have 20 days to intervene.

- (3) Applicant shall, on the date it files an application, mail notice of its application to the owners of land, as stated on the current county tax roll(s), who would be directly affected by the requested certificate. For purposes of this paragraph, land is directly affected if an easement or other property interest would be obtained over all or any portion of it, or if it contains a habitable structure that would be within 300 feet of the centerline of a transmission project of 230kV or less, or within 500 feet of the centerline of a transmission project greater than 230kV.
 - (A) The notice must contain all information required in paragraph (1) of this subsection and shall include all the information required by the standard notice letter to landowners prescribed by the commission. The commission's docket number pertaining to the application must be stated in all notices. The notice must also include a copy of the "Landowners and Transmission Line Cases at the PUC" brochure prescribed by the commission.
 - (B) The notice must include a map as described in paragraph (1)(C) of this subsection.
 - (C) Before final approval of any modification in the applicant's proposed route(s), applicant shall provide notice as required under subparagraphs (A) and (B) of this paragraph to all directly affected landowners who have not already received such notice.
 - (D) Proof of notice may be established by an affidavit affirming that the applicant sent notice by first-class mail to each of the persons listed as an owner of directly affected land on the current county tax roll(s). The proof of notice shall include a list of all landowners to whom notice was sent and a statement of whether any formal contact related to the proceeding between the utility and the landowner other than the notice has occurred. This proof of notice shall be filed with the commission no later than 20 days after the filing of the application.
 - (E) Upon the filing of proof of notice as described in subparagraph (D) of this paragraph, the lack of actual notice to any individual landowner will not in and of itself support a finding that the requirements of this paragraph have not been satisfied. If, however, the utility finds that an owner of directly affected land has not received notice, it shall immediately advise the commission by written pleading and shall provide notice to such landowner(s) by priority mail, with delivery confirmation, in the same form described in subparagraphs (A) and (B) of this paragraph, except that the notice shall state that the person has fifteen days from the date of delivery to intervene. The utility shall immediately file a supplemental affidavit of notice with the commission.
- (4) The utility shall hold at least one public meeting prior to the filing of its licensing application if 25 or more persons would be entitled to receive direct mail notice of the application. Direct mail notice of the public meeting shall be sent by first-class mail to each of the persons listed on the current county tax rolls as an owner of land within 300 feet of the centerline of a transmission project of 230kV or less, or within 500 feet of the centerline of a transmission project greater than 230kV. The utility shall also provide written notice to the Department of Defense Siting Clearinghouse of the public meeting. In the notice for the public meeting, at the public meeting, and in other communications with a potentially affected person, the utility

Subchapter D. NOTICE.

- shall not describe routes as preferred routes or otherwise suggest that a particular route is more or less likely to be selected than one of the other routes. In the event that no public meeting is held, the utility shall provide written notice to the Department of Defense Siting Clearinghouse of the planned filing of an application prior to completion of the routing study.
- (5) Failure to provide notice in accordance with this section shall be cause for day-for-day extension of deadlines for intervention and for commission action on the application.
- (6) Upon entry of a final, appealable order by the commission approving an application, the utility shall provide notice to all owners of land who previously received direct notice. Proof of notice under this subsection shall be provided to the commission's staff.
 - (A) If the owner's land is directly affected by the approved route, the notice shall consist of a copy of the final order.
 - (B) If the owner's land is not directly affected by the approved route, the notice shall consist of a brief statement that the land is no longer the subject of a pending proceeding and will not be directly affected by the facility.
- (7) All notices of an applicant's intent to secure a certificate of convenience and necessity whether provided by publication or direct mail shall include the following language: "All routes and route segments included in this notice are available for selection and approval by the Public Utility Commission of Texas."
- (b) **Notice in telephone licensing proceedings.** In all telephone licensing proceedings, except minor boundary changes, applications for a certificate of operating authority, or applications for a service provider certificate of operating authority, the applicant shall give notice in the following ways:
 - Applicants shall publish in a newspaper having general circulation in the county or counties (1) where a certificate of convenience and necessity is being requested, once each week for two consecutive weeks, beginning the week after the application is filed, notice of the applicant's intent to secure a certificate of convenience and necessity. This notice shall identify in general terms the types of facilities, if applicable, the area for which the certificate is being requested, and the estimated expense associated with the project. Whenever possible, the notice should state the established intervention deadline. The notice shall also include the following statement: "Persons with questions about this project should contact (name of utility contact) at (utility contact telephone number). Persons who wish to intervene in the proceeding or comment upon action sought, should contact the Public Utility Commission, P.O. Box 13326, Austin, Texas 78711-3326, or call the Public Utility Commission at (512) 936-7120 or (888) 782-8477. Hearing- and speech-impaired individuals with text telephones (TTY) may contact the commission at (512) 936-7136. The deadline for intervention in the proceeding is (date 70 days after the date the application was filed with the commission) and you must send a letter requesting intervention to the commission which is received by that date." Proof of publication of notice shall be in the form of a publisher's affidavit, which shall specify the newspaper or newspapers in which the notice was published; the county or counties in which the newspaper or newspapers is or are of general circulation; the dates upon which the notice was published and a copy of the notice as published. Proof of publication shall be submitted to the commission as soon as available.
 - (2) Applicant shall also mail notice of its application, which shall contain the information as set out in paragraph (1) of this subsection, to cities and to neighboring utilities providing the same service within five miles of the requested territory or facility. Applicant shall also provide notice to the county government of all counties in which any portion of the proposed facility or territory is located. The notice provided to county governments shall be identical to that provided to cities and to neighboring utilities. An affidavit attesting to the provision of notice to counties shall specify the dates of the provision of notice and the identity of the individual counties to which such notice was provided.
 - (3) Failure to provide notice in accordance with this section shall be cause for day-for-day extension of deadlines for intervention.

(V.A.C.S. art. 1446c-0, sec. 2.258.) (Amended by Acts 2009, 81st Leg., R.S., ch. 1170 (HB 3309), § 4 (amended subsecs. (a), (b), and (c)).)

Sec. 37.056. GRANT OR DENIAL OF CERTIFICATE.

- (a) The commission may approve an application and grant a certificate only if the commission finds that the certificate is necessary for the service, accommodation, convenience, or safety of the public.
 - (b) The commission may:
 - (1) grant the certificate as requested;
 - (2) grant the certificate for the construction of a portion of the requested system, facility, or extension or the partial exercise of the requested right or privilege; or
 - (3) refuse to grant the certificate.
 - (c) The commission shall grant each certificate on a nondiscriminatory basis after considering:
 - (1) the adequacy of existing service;
 - (2) the need for additional service;
 - (3) the effect of granting the certificate on the recipient of the certificate and any electric utility serving the proximate area; and
 - (4) other factors, such as:
 - (A) community values;
 - (B) recreational and park areas;
 - (C) historical and aesthetic values;
 - (D) environmental integrity;
 - (E) the probable improvement of service or lowering of cost to consumers in the area if the certificate is granted; and
 - (F) to the extent applicable, the effect of granting the certificate on the ability of this state to meet the goal established by Section 39.904(a) of this title.
- (d) The commission by rule shall establish criteria, in addition to the criteria described by Subsection (c), for granting a certificate for a transmission project that serves the ERCOT power region, that is not necessary to meet state or federal reliability standards, and that does not serve a competitive renewable energy zone. The criteria must include a comparison of the estimated cost of the transmission project and the estimated cost savings that may result from the transmission project. The commission shall include with its decision on an application for a certificate to which this subsection applies findings on the criteria.
 - (V.A.C.S. art. 1446c-0, secs. 2.255(b), (c).) (Amended by Acts 2003, 78th Leg., R.S., ch. 295 (HB 2548), § 2 (added subd. (c)(4)(F)); Acts 2011, 82nd Leg., R.S., ch. 949 (HB 971), § 2(a) (added subsec. (d)).)

Sec. 37.057. DEADLINE FOR APPLICATION FOR NEW TRANSMISSION FACILITY.

The commission may grant a certificate for a new transmission facility to a qualified applicant that meets the requirements of this subchapter. The commission must approve or deny an application for a certificate for a new transmission facility not later than the first anniversary of the date the application is filed. If the commission does not approve or deny the application on or before that date, a party may seek a writ of mandamus in a district court of Travis County to compel the commission to decide on the application.

(V.A.C.S. art. 1446c-0, sec. 2.255(e).) (Amended by Acts 2009, 81st Leg., R.S., ch. 1170 (HB 3309), § 4).

Sec. 37.058. CERTIFICATE AND DETERMINATION ISSUED TO CERTAIN NON-ERCOT UTILITIES FOR GENERATING FACILITY.

(a) This section applies only to an electric utility that operates solely outside of ERCOT.

Subchapter E. CERTIFICATION, LICENSING AND REGISTRATION.

§25.101. Certification Criteria.

- (a) **Definitions.** The following words and terms, when used in this section, shall have the following meanings unless the context clearly indicates otherwise:
 - (1) Construction and/or extension -- Shall not include the purchase or condemnation of real property for use as facility sites or right-of-way. Acquisition of right-of-way shall not be deemed to entitle an electric utility to the grant of a certificate of convenience and necessity without showing that the construction and/or extension is necessary for the service, accommodation, convenience, or safety of the public.
 - (2) Generating unit -- Any electric generating facility. This section does not apply to any generating unit that is less than ten megawatts and is built for experimental purposes only.
 - (3) Habitable structures -- Structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis. Habitable structures include, but are not limited to: single-family and multi-family dwellings and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, and schools.
 - (4) Municipal Power Agency (MPA) -- Agency or group created under Texas Utilities Code, Chapter 163 – Joint Powers Agencies.
 - (5) **Municipal Public Entity (MPE)** -- A municipally owned utility (MOU) or a municipal power agency.
 - (6) Prudent avoidance -- The limiting of exposures to electric and magnetic fields that can be avoided with reasonable investments of money and effort.
 - (7) Tie line -- A facility to be interconnected to the Electric Reliability Council of Texas (ERCOT) transmission grid by a person, including an electric utility or MPE, that would enable additional power to be imported into or exported out of the ERCOT power grid.
- (b) Certificates of convenience and necessity for new service areas and facilities. Except for certificates granted under subsection (e) of this section, the commission may grant an application and issue a certificate only if it finds that the certificate is necessary for the service, accommodation, convenience, or safety of the public, and complies with the statutory requirements in the Public Utility Regulatory Act (PURA) §37.056. The commission may issue a certificate as applied for, or refuse to issue it, or issue it for the construction of a portion of the contemplated system or facility or extension thereof, or for the partial exercise only of the right or privilege. The commission shall render a decision approving or denying an application for a certificate within one year of the date of filing of a complete application for such a certificate, unless good cause is shown for exceeding that period. A certificate, or certificate amendment, is required for the following:
 - (1) Change in service area. Any certificate granted under this section shall not be construed to vest exclusive service or property rights in and to the area certificated.
 - (A) Uncontested applications: An application for a certificate under this paragraph shall be approved administratively within 80 days from the date of filing a complete application if:
 - (i) no motion to intervene has been filed or the application is uncontested;
 - (ii) all owners of land that is affected by the change in service area and all customers in the service area being changed have been given direct mail notice of the application; and
 - (iii) commission staff has determined that the application is complete and meets all applicable statutory criteria and filing requirements, including, but not limited to, the provision of proper notice of the application.
 - (B) Minor boundary changes or service area exceptions: Applications for minor boundary changes or service area exceptions shall be approved administratively within 45 days of the filing of the application provided that:

Subchapter E. CERTIFICATION, LICENSING AND REGISTRATION.

- (i) every utility whose certificated service area is affected agrees to the change;
- (ii) all customers within the affected area have given prior consent; and
- (iii) commission staff has determined that the application is complete and meets all applicable statutory criteria and filing requirements, including, but not limited to, the provision of proper notice of the application.

(2) Generation facility.

- (A) In a proceeding involving the purchase of an existing electric generating facility by an electric utility that operates solely outside of ERCOT, the commission shall issue a final order on a certificate for the facility not later than the 181st day after the date a request for the certificate is filed with the commission under PURA §37.058(b).
- (B) In a proceeding involving a newly constructed generating facility by an electric utility that operates solely outside of ERCOT, the commission shall issue a final order on a certificate for the facility not later than the 366th day after the date a request for the certificate is filed with the commission under PURA §37.058(b).
- (3) Electric transmission line. All new electric transmission lines shall be reported to the commission in accordance with §25.83 of this title (relating to Transmission Construction Reports). This reporting requirement is also applicable to new electric transmission lines to be constructed by an MPE seeking to directly or indirectly construct, install, or extend a transmission facility outside of its applicable boundaries. For an MOU, the applicable boundaries are the municipal boundaries of the municipality that owns the MOU. For an MPA, the applicable boundaries are the municipal boundaries of the public entities participating in the MPA.
 - (A) Need:
 - Except as stated below, the following must be met for a transmission line in (i) the ERCOT power region. The applicant must present an economic costbenefit study that includes an analysis that shows that the levelized ERCOTwide annual production cost savings attributable to the proposed project are equal to or greater than the first-year annual revenue requirement of the proposed project of which the transmission line is a part. Indirect costs and benefits to the transmission system may be included in the cost-benefit study. The commission shall give great weight to such a study if it is conducted by the ERCOT independent system operator. This requirement also does not apply to an application for a transmission line that is necessary to meet state or federal reliability standards, including: a transmission line needed to interconnect a transmission service customer or end-use customer; or needed due to the requirements of any federal, state, county, or municipal government body or agency for purposes including, but not limited to, highway transportation, airport construction, public safety, or air or water quality.
 - (ii) For a transmission line not addressed by clause (i) of this subparagraph, the commission shall consider among other factors, the needs of the interconnected transmission systems to support a reliable and adequate network and to facilitate robust wholesale competition. The commission shall give great weight to:
 - (I) the recommendation of an organization that meets the requirement of PURA §39.151; and/or
 - (II) written documentation that the transmission line is needed to interconnect a transmission service customer or an end-use customer.

- (B) Routing: An application for a new transmission line shall address the criteria in PURA §37.056(c) and considering those criteria, engineering constraints, and costs, the line shall be routed to the extent reasonable to moderate the impact on the affected community and landowners unless grid reliability and security dictate otherwise. The following factors shall be considered in the selection of the utility's alternative routes unless a route is agreed to by the utility, the landowners whose property is crossed by the proposed line, and owners of land that contains a habitable structure within 300 feet of the centerline of a transmission project of 230 kV or less, or within 500 feet of the centerline of a transmission project greater than 230 kV, and otherwise conforms to the criteria in PURA §37.056(c):
 - (i) whether the routes parallel or utilize existing compatible rights-of-way for electric facilities, including the use of vacant positions on existing multiple-circuit transmission lines;
 - (ii) whether the routes parallel or utilize other existing compatible rights-ofway, including roads, highways, railroads, or telephone utility rights-ofway;
 - (iii) whether the routes parallel property lines or other natural or cultural features;
 and
 - (iv) whether the routes conform with the policy of prudent avoidance.
- (C) Uncontested transmission lines: An application for a certificate for a transmission line shall be approved administratively within 80 days from the date of filing a complete application if:
 - (i) no motion to intervene has been filed or the application is uncontested; and
 - (ii) commission staff has determined that the application is complete and meets all applicable statutory criteria and filing requirements, including, but not limited to, the provision of proper notice of the application.
- (D) Projects deemed critical to reliability. Applications for transmission lines which have been formally designated by a PURA §39.151 organization as critical to the reliability of the system shall be considered by the commission on an expedited basis. The commission shall render a decision approving or denying an application for a certificate under this subparagraph within 180 days of the date of filing a complete application for such a certificate unless good cause is shown for extending that period.
- (4) Tie line. An application for a tie line must include a study of the tie line by the ERCOT independent system operator. The study shall include, at a minimum, an ERCOT-approved reliability assessment of the proposed tie line. If an independent system operator intends to conduct a study to evaluate a proposed tie line or intends to provide confidential information to another entity to permit the study of a proposed tie line, the independent system operator shall file notice with the commission at least 45 days prior to the commencement of such a study or the provision of such information. This paragraph does not apply to a facility that is in service on December 31, 2014.
- (c) **Projects or activities not requiring a certificate.** A certificate, or certificate amendment, is not required for the following:
 - (1) A contiguous extension of those facilities described in PURA §37.052;
 - (2) A new electric high voltage switching station, or substation;
 - (3) The repair or reconstruction of a transmission facility due to emergencies. The repair or reconstruction of a transmission facility due to emergencies shall proceed without delay or prior approval of the commission and shall be reported to the commission in accordance with §25.83 of this title;
 - (4) The construction or upgrading of distribution facilities within the electric utility's service area;

- (5) Routine activities associated with transmission facilities that are conducted by transmission service providers. Nothing contained in the following subparagraphs should be construed as a limitation of the commission's authority as set forth in PURA. Any activity described in the following subparagraphs shall be reported to the commission in accordance with §25.83 of this title. The commission may require additional facts or call a public hearing thereon to determine whether a certificate of convenience and necessity is required. Routine activities are defined as follows:
 - (A) The modification or extension of an existing transmission line solely to provide service to a substation or metering point provided that:
 - (i) an extension to a substation or metering point does not exceed one mile; and
 - (ii) all landowners whose property is crossed by the transmission facilities have given prior written consent.
 - (B) The rebuilding, replacement, or respacing of structures along an existing route of the transmission line; upgrading to a higher voltage not greater than 230 kV; bundling of conductors or reconductoring of an existing transmission facility, provided that:
 - (i) no additional right-of-way is required; or
 - (ii) if additional right-of-way is required, all landowners of property crossed by the electric facilities have given prior written consent.
 - (C) The installation, on an existing transmission line, of an additional circuit not previously certificated, provided that:
 - (i) the additional circuit is not greater than 230 kV; and
 - (ii) all landowners whose property is crossed by the transmission facilities have given prior written consent.
 - (D) The relocation of all or part of an existing transmission facility due to a request for relocation, provided that:
 - (i) the relocation is to be done at the expense of the requesting party; and
 - (ii) the relocation is solely on a right-of-way provided by the requesting party.
 - (E) The relocation or alteration of all or part of an existing transmission facility to avoid or eliminate existing or impending encroachments, provided that all landowners of property crossed by the electric facilities have given prior written consent.
 - (F) The relocation, alteration, or reconstruction of a transmission facility due to the requirements of any federal, state, county, or municipal governmental body or agency for purposes including, but not limited to, highway transportation, airport construction, public safety, or air and water quality, provided that:
 - all landowners of property crossed by the electric facilities have given prior written consent; and
 - (ii) the relocation, alteration, or reconstruction is responsive to the governmental request.
- (6) Upgrades to an existing transmission line by an MPE that do not require any additional land, right-of-way, easement, or other property not owned by the MOU;
- (7) The construction, installation, or extension of a transmission facility by an MPE that is entirely located not more than 10 miles outside of an MOU's certificated service area that occurs before September 1, 2021; or
- (8) A transmission facility by an MOU placed in service after September 1, 2015, that is developed to interconnect a new natural gas generation facility to the ERCOT transmission grid and for which, on or before January 1, 2015, an MOU was contractually obligated to purchase at least 190 megawatts of capacity.

- (d) Standards of construction and operation. In determining standard practice, the commission shall be guided by the provisions of the American National Standards Institute, Incorporated, the National Electrical Safety Code, and such other codes and standards that are generally accepted by the industry, except as modified by this commission or by municipal regulations within their jurisdiction. Each electric utility shall construct, install, operate, and maintain its plant, structures, equipment, and lines in accordance with these standards, and in such manner to best accommodate the public, and to prevent interference with service furnished by other public utilities insofar as practical.
 - (1) The standards of construction shall apply to, but are not limited to, the construction of any new electric transmission facilities, rebuilding, upgrading, or relocation of existing electric transmission facilities.
 - (2) For electric transmission line construction requiring the acquisition of new rights-of-way, electric utilities must include in the easement agreement, at a minimum, a provision prohibiting the new construction of any above-ground structures within the right-of-way. New construction of structures shall not include necessary repairs to existing structures, farm or livestock facilities, storage barns, hunting structures, small personal storage sheds, or similar structures. Utilities may negotiate appropriate exceptions in instances where the electric utility is subject to a restrictive agreement being granted by a governmental agency or within the constraints of an industrial site. Any exception to this paragraph must meet all applicable requirements of the National Electrical Safety Code.
 - (3) Measures shall be applied when appropriate to mitigate the adverse impacts of the construction of any new electric transmission facilities, and the rebuilding, upgrading, or relocation of existing electric transmission facilities. Mitigation measures shall be adapted to the specifics of each project and may include such requirements as:
 - (A) selective clearing of the right-of-way to minimize the amount of flora and fauna disturbed;
 - (B) implementation of erosion control measures;
 - (C) reclamation of construction sites with native species of grasses, forbs, and shrubs; and
 - (D) returning site to its original contours and grades.
- (e) Certificates of convenience and necessity for existing service areas and facilities. For purposes of granting these certificates for those facilities and areas in which an electric utility was providing service on September 1, 1975, or was actively engaged in the construction, installation, extension, improvement of, or addition to any facility actually used or to be used in providing electric utility service on September 1, 1975, unless found by the commission to be otherwise, the following provisions shall prevail for certification purposes:
 - (1) The electrical generation facilities and service area boundary of an electric utility having such facilities in place or being actively engaged in the construction, installation, extension, improvement of, or addition to such facilities or the electric utility's system as of September 1, 1975, shall be limited, unless otherwise provided, to the facilities and real property on which the facilities were actually located, used, or dedicated as of September 1, 1975.
 - (2) The transmission facilities and service area boundary of an electric utility having such facilities in place or being actively engaged in the construction, installation, extension, improvement of, or addition to such facilities or the electric utility's system as of September 1, 1975, shall be, unless otherwise provided, the facilities and a corridor extending 100 feet on either side of said transmission facilities in place, used or dedicated as of September 1, 1975.
 - (3) The facilities and service area boundary for the following types of electric utilities providing distribution or collection service to any area, or actively engaged in the construction, installation, extension, improvement of, or addition to such facilities or the electric utility's system as of September 1, 1975, shall be limited, unless otherwise found by the commission, to the facilities and the area which lie within 200 feet of any point along a distribution line, which is specifically deemed to include service drop lines, for electrical utilities.

- (f) **Transferability of certificates.** Any certificate granted under this section is not transferable without approval of the commission and shall continue in force until further order of the commission.
- (g) Certification forms. All applications for certificates of convenience and necessity shall be filed on commission-prescribed forms so that the granting of certificates, both contested and uncontested, may be expedited. Forms may be obtained from Central Records.
- (h) Commission authority. Nothing in this section is intended to limit the commission's authority to recommend or direct the construction of transmission under PURA §§35.005, 36.008, or 39.203(e).

PUC DOCKET NO. 48787

JOINT APPLICATION OF LCRA	§	BEFORE THE
TRANSMISSION SERVICES	§	
CORPORATION AND AEP TEXAS INC.	§	
TO AMEND THEIR CERTIFICATES OF	§	PUBLIC UTILITY COMMISSION
CONVENIENCE AND NECESSITY FOR	§	
THE PROPOSED BAKERSFIELD TO	§	
SOLSTICE 345-KV TRANSMISSION	§	
LINE PROJECT IN PECOS COUNTY,	§	OF TEXAS
TEXAS		

DIRECT TESTIMONY AND EXHIBITS

OF

LISA B. MEAUX

ON BEHALF OF

APPLICANTS
LCRA TRANSMISSION SERVICES CORPORATION
AND
AEP TEXAS INC.

November 2018

PUC DOCKET NO. 48787 DIRECT TESTIMONY AND EXHIBITS OF LISA B. MEAUX

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EXHIBITS

Exhibit LBM-1: Resume of Lisa Meaux

Exhibit LBM-2: PURA § 37.056

Exhibit LBM-3: PUC Substantive Rule § 25.101

PUC DOCKET NO. 48787 DIRECT TESTIMONY AND EXHIBITS OF LISA B. MEAUX

I. INTRODUCTION AND QUALIFICATIONS

2	\mathbf{O}	PLEASE STATE YOUR	NAME AND F	RUSINESS ADDRESS.

- 3 A. My name is Lisa B. Meaux. My business address is 16825 Northchase Drive, Suite 1200, Houston, Texas 77060.
- 5 Q. WHAT IS YOUR OCCUPATION?
- A. I am employed by POWER Engineers, Inc. (POWER), a 100 percent employee owned consulting and engineering firm, as Project Manager/Department Manager in the
- 8 Environmental Division.

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9 Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?

10 A. I received an Associate of Science degree from Houston Community College in 1995, a
11 Bachelor of Science degree in Environmental Science from Texas A&M University in
12 1998, and a Master of Science degree in Environmental Management from University of
13 Houston in 2001.

Since 1998, when I was first employed as an environmental consultant, I have provided environmental planning and consulting services for electric transmission line projects, fiber optic projects, land development projects, and other energy-related projects, including gas pipelines, and siting for generation facilities. The first environmental assessment I managed was a 345-kV transmission line in Texas in 1999.

Since that project, I have managed over 45 routing and environmental impact analyses for electric transmission line projects in Texas and in other states, and I have worked in other capacities on over 30 additional transmission line projects. The projects I have managed range in size from 69-kV to 765-kV and have been as short as four miles to over 360 miles in length.

In January 2014, I became a Department Manager in POWER's Environmental Division. I am involved in overseeing, conducting, and managing primarily environmental assessment projects for transmission lines and ensuring that POWER's environmental studies and impact assessments under my direction address the provisions and requirements

Meaux Direct Testimony Page 3 684

1		of applicable regulations, guidelines, and standards of local, state, and federal agencies. I
2		also have administrative and business development responsibilities. My resume is attached
3		as Exhibit LBM-1.
4	Q.	HAVE YOU SUBMITTED TESTIMONY IN A PROCEEDING BEFORE THE
5		PUBLIC UTILITY COMMISSION OF TEXAS (COMMISSION OR PUC)?
6	A.	Yes. I submitted testimony in Commission Docket Nos. 21741, 30617, 36995, 38517,
7		38324, 39479, 40125, 40216, 40953, 41674, 41756, 44837, 45866, 46234, 47192, 47691,
8		and 48490.
9	Q.	WERE YOUR TESTIMONY AND THE PORTIONS OF THE APPLICATION
10		YOU SPONSOR PREPARED BY YOU OR BY KNOWLEDGEABLE PERSONS
11		UPON WHOSE EXPERTISE, JUDGMENT, AND OPINIONS YOU RELY IN
12		PERFORMING YOUR DUTIES?

- 13 A. Yes, they were.
- Q. IS THE INFORMATION CONTAINED IN YOUR TESTIMONY AND IN THE
 PORTIONS OF THE APPLICATION YOU SPONSOR TRUE AND CORRECT TO
 THE BEST OF YOUR KNOWLEDGE AND BELIEF?
- 17 A. Yes, it is.

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II. PURPOSE OF TESTIMONY

19 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

20 A. The purpose of my testimony is to introduce, support, sponsor, and describe the Bakersfield to Solstice 345-kV Transmission Line Project Environmental Assessment and Alternative 21 22 Route Analysis in Pecos County, Texas (EA) prepared by POWER at the request of LCRA Transmission Services Corporation (LCRA TSC) and AEP Texas Inc. (AEP Texas). The 23 24 EA is sponsored by me and included as Attachment 1 to LCRA TSC and AEP Texas' Joint Application to Amend their Certificates of Convenience and Necessity (CCN) for the 25 26 Bakersfield to Solstice 345-kV Transmission Line Project (Application) filed in November 27 2018.

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1 Q. WHICH QUESTIONS IN THE APPLICATION IN THIS DOCKET DO YOU

2 SPONSOR?

- 3 A. I sponsor the responses to Questions 21, 22, 24, 26, 27, and 28 of the Application. I co-
- 4 sponsor Ouestions 6, 17, 18, 19, 20, 23 and 29 of the Application and Attachment 1. Please
- 5 see Attachment SS-5 of Ms. Sonya Strambler's testimony for complete sponsorship of the
- 6 Application.

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III. ENVIRONMENTAL ASSESSMENT AND ROUTING STUDY

8 Q. WHY DID POWER PREPARE THE EA?

- 9 A. LCRA TSC and AEP Texas retained POWER to perform and prepare an EA for the
- Bakersfield to Solstice 345-kV Transmission Line Project (Project), which will connect the
- 11 LCRA TSC's existing Bakersfield Station within Pecos County, Texas to AEP Texas'
- existing Solstice Switch Station, which is also within Pecos County, Texas. My
- responsibility as Project Manager involved overseeing and participating in preparation of
- the EA.

15 Q. WAS ANYONE OTHER THAN YOU INVOLVED IN THE PREPARATION OF

- 16 **THE EA?**
- 17 A. Yes. A team of professionals with expertise in different environmental and land use
- disciplines (geology/soils, hydrology/water quality, terrestrial ecology, wetland ecology,
- 19 land use/aesthetics, and cultural resources) were involved in data acquisition, routing
- analysis, and environmental assessment for the Project. Section 5.0 of the EA presents a
- 21 list of the primary preparers of the EA.

22 Q. WHAT DOES THE EA ADDRESS?

- 23 A. The EA provides a detailed description of the data gathered and analyzed by POWER in
- association with the Project, and the routing procedures and methodology utilized by
- 25 POWER to delineate and evaluate alternative routes.

26 Q. WHAT INFORMATION DOES THE EA CONTAIN?

- 27 A. The EA includes information on physiography, geology, soils, prime farmland, mineral
- and energy resources, surface water, floodplains, groundwater, vegetation, terrestrial and

Meaux Direct Testimony Page 5

- aquatic wildlife, endangered and threatened species, land use, habitable structures, existing
- linear facilities, recreational areas, agriculture, aesthetics, transportation and aviation
- facilities, communication towers, socioeconomics, and cultural resources.

4 Q. PLEASE DESCRIBE THE OBJECTIVES OF THE EA.

5 A. The objectives of the EA were to identify and evaluate alternative transmission line routes 6 for the Project. The approach taken by POWER consisted of a series of tasks designed to 7 address the requirements of Public Utility Regulatory Act (PURA) § 37.056(c)(4)(A)–(D), 8 attached as Exhibit LBM-2, Commission Substantive Rule § 25.101(b)(3)(B), attached as 9 Exhibit LBM-3, including the Commission's policy of prudent avoidance, the 10 Commission's CCN application requirements, and the issues commonly included to be 11 addressed in Commission preliminary orders associated with CCN applications. The tasks 12 included scoping and study area delineation, data collection, constraints mapping, 13 preliminary alternative route segment, participation in an open house meeting, 14 modification and addition of alternative route segments following the open house meeting, and primary alternative route development and evaluation. 15

Q. HOW DID POWER IDENTIFY PRELIMINARY ALTERNATIVE ROUTE SEGMENTS FOR THE PROJECT?

A. To identify preliminary alternative route segments for the Project, POWER delineated a study area, sought public official and agency input, gathered data regarding the study area, performed constraints mapping, identified preliminary alternative route segments, and reviewed and adjusted the preliminary alternative route segments following field reconnaissance and an open house meeting.

Study Area Delineation

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The study area for the Project was identified to include the existing eastern endpoint—the LCRA TSC Bakersfield Station located off Farm-to-Market Road (FM) 1901 approximately 38 miles northeast of Fort Stockton, Texas—as well as the existing western endpoint, AEP Texas' Solstice Switch Station located off Interstate Highway (IH) 10, approximately 29 miles west of Fort Stockton. The study area was delineated to be large enough that an adequate number of reasonably differentiated alternative routes could be

Meaux Direct Testimony Page 6

identified. Figure 2-1 of the EA shows the study area identified by POWER, LCRA TSC,

2 and AEP Texas.

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Data Collection and Agency Contact

Once the study area was delineated, POWER, LCRA TSC, and AEP Texas initiated a variety of data collection activities. One of the first data collection activities was the development of a list of agencies and officials to be mailed a consultation letter regarding the Project. POWER, LCRA TSC, and AEP Texas mailed consultation letters concerning the study area in January 2018. The purpose of the letters was to inform the various officials and agencies of the Project and to give those officials and agencies the opportunity to provide any information they had regarding the Project and/or general study area. In response, POWER, LCRA TSC, and AEP Texas received written and verbal information from various agencies and public officials. Written responses to the consultation letters are included in Appendix A of the EA. Additional data collection activities POWER performed included a review of available local, state, and federal files and records, published literature, and a variety of spatial data and maps, including recent aerial photography (flown February 2018), U.S. Geological Survey topographic maps, Texas Department of Transportation (TxDOT) county highway maps, and National Wetland Inventory maps from the United States Fish and Wildlife Service (USFWS). During the course of the data collection activities, POWER, LCRA TSC, and AEP Texas personnel also conducted numerous reconnaissance surveys of the study area in March 2018 and July 2018.

Constraints Mapping

Given that a significant number of potential routes could be delineated to connect the Bakersfield Station to the Solstice Switch Station, a constraints mapping process was used in selecting and refining possible alternative routes. The information collected during the various data collection activities was utilized to develop an environmental and land use constraints map. Appendices C and D of the EA depict the majority of the environmental and land use constraints compiled by POWER. Archeological resources are not shown on the figures to protect these sites.

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Preliminary Alternative Route Segments

Upon completion of the initial data collection activities and constraints mapping, the next step in the routing process was to identify preliminary alternative route segments to connect the Bakersfield Station to the Solstice Switch Station. POWER delineated a network of preliminary alternative route segments between the Project endpoints. Preliminary alternative route segments were identified in accordance with PURA § 37.056(c)(4)(A)–(D), Commission Substantive Rule 25.101, including the PUC's policy of prudent avoidance, the PUC's CCN Application requirements, and the issues commonly included for consideration in the Commission's preliminary orders for CCN applications. POWER identified a number of geographically diverse preliminary alternative route segments that were environmentally acceptable, considering such factors as community values, park and recreational areas, historical and aesthetic values, environmental integrity, length of route parallel to or utilizing existing compatible corridors (including apparent property boundaries), and prudent avoidance.

The delineated network of preliminary alternative route segments was presented to the public at an open house meeting on July 12, 2018 (see Appendix B of the EA for depiction of the segments presented at the open house).

Following feedback from the public, government agencies, and public officials, and evaluation of the preliminary alternative route segments, POWER worked with LCRA TSC and AEP Texas to identify 82 primary alternative route segments that connected the Bakersfield Station to the Solstice Switch Station. The locations of the primary alternative route segments presented in the Application are shown in Appendices D and E of the EA.

Q. DID POWER CONSIDER INPUT FROM GOVERNMENTAL AGENCIES?

A. Yes, as discussed in Section 3.2.2.1 of the EA and in my testimony above, POWER, LCRA TSC, and AEP Texas solicited information and comments from a variety of state and federal agencies.

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1	\mathbf{O}	DID	POWER	CONSIDER	INPIT FR	OM LOC	CALC	DEFICIA:	LS?

- 2 A. Yes, as discussed in Section 3.2.2.1 of the EA and in my testimony above, POWER, LCRA
- TSC, and AEP Texas solicited information and considered comments from local officials
- 4 with interest in the study area.

5 O. PLEASE DESCRIBE HOW AND WHEN IN THE PROCESS POWER UTILIZED

- 6 THE COMMENTS AND INFORMATION FROM GOVERNMENTAL AGENCIES
- 7 AND LOCAL OFFICIALS.
- 8 A. POWER utilized comments and information from governmental agencies and local
- 9 officials in the preparation of the existing environmental setting section of the EA (Section
- 10 2.0), the constraints maps, and in the selection and evaluation of both the preliminary and
- primary alternative route segments.

12 Q. WHAT PROCESS DID POWER UTILIZE TO IDENTIFY AND COMPARE THE

- 13 PRIMARY ALTERNATIVE ROUTES FOR THE PROJECT?
- 14 A. In identifying and comparing the primary alternative routes, POWER considered a variety
- of information including, among other things: input received from the public, previously
- identified preliminary alternative route segments that provide geographic diversity within
- the study area, and an inventory and tabulation of a number of environmental and land use
- criteria for the primary alternative routes as shown in Table 4-1 of the EA.
- 19 Public Open House Meeting Input/Route Segment Revisions
- The preliminary alternative route segments were presented to the public during an LCRA
- TSC and AEP Texas public open house meeting held on July 12, 2018. Following the open
- 22 house meeting, revisions were made to the preliminary alternative route segments, some of
- which were in response to landowner input received by LCRA TSC and AEP Texas and
- 24 then discussed with POWER. The revisions are documented in Section 3.3 of the EA and
- depicted on Figures 3-2 through 3-10, with the resulting 82 primary alternative route
- segments depicted on Figures 3-13 and in Appendices D and E.
- 27 <u>Identification of Primary Alternative Routes</u>
- POWER, LCRA TSC, and AEP Texas identified a total of 25 geographically diverse
- 29 primary alternative routes for inclusion in the Application. Many more alternative routes

Meaux Direct Testimony Page 9 690

could be formed by connecting the primary alternative route segments in various combinations. Any such reasonably forward-progressing route that satisfies the need for the Project would be a feasible alternative.

Primary Alternative Route Evaluation/Impact Assessment

Α.

As detailed in Section 4.0 of the EA, POWER examined each of the 25 primary alternative routes selected for detailed analysis via site reconnaissance from publicly accessible locations in the study area and aerial photography. The primary alternative routes were also evaluated considering a variety of environmental and land use criteria. The evaluation of each route involved inventorying and tabulating the number or quantity of each criterion along each route as demonstrated in Table 4-1 of the EA.

11 Q. WERE LCRA TSC AND AEP TEXAS INVOLVED IN THE REVIEW OF THE 12 PRIMARY ALTERNATIVE ROUTES?

13 A. Yes, LCRA TSC and AEP Texas reviewed the primary alternative routes with regard to
14 cost, construction, engineering, right-of-way (ROW) maintenance, and constraints. LCRA
15 TSC and AEP Texas also conducted field reconnaissance of the primary alternative routes.

16 Q. PLEASE DESCRIBE THE PUBLIC INVOLVEMENT PROGRAM YOU 17 MENTIONED PREVIOUSLY.

The public involvement program involved consultation and solicitation of information from local officials and various state and federal agencies in order to give such officials and agencies the opportunity to provide POWER with any information they had regarding the Project or study area. The public involvement program also included an open house meeting and a period of consultation between LCRA TSC, AEP Texas, and landowners. Information received from the public involvement program was considered and incorporated into POWER's evaluation of the Project. Correspondence to and from local officials and state and federal agencies regarding the Project is located in Appendix B of the EA. LCRA TSC and AEP Texas also provided an internet website for the Project, as described in Section 3.2.2.4 of the EA. For additional information on the public involvement program, please refer to Ms. Strambler's direct testimony.

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- 1 Q. WHAT **MODIFICATIONS** WERE MADE TO THE PRELIMINARY 2 **SEGMENTS FOLLOWING** THE **PUBLIC ALTERNATIVE** ROUTE
- 3 INVOLVEMENT PROGRAM?
- A. POWER, LCRA TSC, and AEP Texas reviewed and evaluated each questionnaire to better understand the respondent's values, concerns, and preferences. That information was considered in the overall identification and evaluation of the alternative route segments. Section 3.2.2.2 of the EA provides a summary of the responses received in the questionnaires during and after the open house meeting. Based on input, comments,
- 9 information received at and following the open house meeting, and additional analysis
- 10 conducted by LCRA TSC, AEP Texas, and POWER, nine preliminary alternative route
- segments were modified and two preliminary alternative route segments were added.
- Section 3.3 of the EA describes the route segment modifications that were implemented
- following the open house meeting.
- 14 Q. PLEASE DESCRIBE THE PROCESS FOLLOWED BY POWER TO EVALUATE
 15 THE PRIMARY ALTERNATIVE ROUTES.
- 16 A. POWER evaluated the primary alternative routes based upon the requirements set forth in
- 17 PURA § 37.056(c)(4)(A)–(D), Commission Substantive Rule 25.101(b)(3)(B), the
- 18 Commission's application requirements, and the issues commonly included for
- consideration in the Commission's preliminary orders for CCN applications. Section 4.0
- of the EA describes the evaluation of the primary alternative routes.
- Q. WHAT ARE THE RESULTS OF POWER'S INVESTIGATIONS REGARDING
 THE PROPOSED TRANSMISSION LINE PROJECT?
- 23 A. The results of POWER's investigations indicate there are no significant impacts to existing
- land use, socioeconomic, hydrological, ecological, geological, or wetland resources and no
- adverse effects to historic-age or archeological resources are anticipated as a result of
- 26 construction of any of the primary alternative routes for the Project. Section 4.0 of the EA
- describes in detail the results of the primary alternative route evaluation and the potential
- 28 impacts for the primary alternative routes.

Meaux Direct Testimony Page 11 692

1 ARE THE ROUTES INCLUDED IN THE APPLICATION CONSISTENT WITH O. 2 PROVISIONS OF THE APPLICABLE PURA, THE **COMMISSION'S** 3 SUBSTANTIVE RULES, THE COMMISSION'S CCN APPLICATION FORM, AND ISSUES COMMONLY INCLUDED IN COMMISSION PRELIMINARY 4 5 ORDERS FOR CCN APPLICATIONS?

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Yes. POWER staff with expertise in many different disciplines delineated and evaluated a number of geographically diverse potential alternative routes for the Project based upon environmental and land use conditions present along each potential route, reconnaissance surveys, and information obtained during the public involvement program. POWER evaluated the routes included in the EA in accordance with the requirements of PURA § 37.056(c)(4)(A)–(D), Commission Substantive Rule 25.101, the Commission's CCN application requirements, and the issues commonly included for consideration in the Commission's preliminary orders for CCN applications. I personally evaluated each potential route and, in my professional opinion, all of the primary alternative routes in the Application, and their constituent route segments, comply with the routing requirements of PURA § 37.056(c)(4)(A)–(D), Commission Substantive Rule 25.101, the Commission's CCN application requirements, and the issues commonly included for consideration in the Commission's preliminary orders for CCN applications.

The routes differ in the tabulation of the various metrics that POWER calculated, as would be expected in a process that attempts to present a robust set of geographically diverse routes for consideration. Additionally, other reasonably forward-progressing routes that connect the Project endpoints may be created by utilizing the existing primary alternative route segments. Such routes may be proposed for consideration in this case and evaluated for compliance with the applicable statutory and regulatory criteria.

IV. <u>INFORMATION ADDRESSING PURA AND</u> THE PUC'S CCN APPLICATION REQUIREMENTS

Q. HOW WAS THE INFORMATION COMPILED BY POWER USED FOR PURPOSES OF THE APPLICATION?

29 A. POWER provided environmental and land use information for the primary alternative routes, which was used to address several specific questions in the Application.

Meaux Direct Testimony Page 12 693

1 Q. WHAT ARE POWER'S FINDINGS REGARDING PROXIMITY TO HABITABLE 2 STRUCTURES IN THE VICINITY OF THE ROUTES?

A.

A. The number of habitable structures within 500 feet of the centerline of each of the alternative routes is presented in Table 4-1 of the EA. Routes 10, 12, 13, 18, 19, 20, 21, and 22 have the least number of habitable structures located within 500 feet of their centerlines, at zero each, while Route 23 has the greatest number of habitable structures within 500 feet with 14.

General descriptions of the habitable structures that are within 500 feet of the centerline of each route and their distances from the centerlines are provided in Tables 4-3 through 4-27 in Appendix C of the EA. The habitable structures located within 500 feet of the routes are shown on Figures 4-1 (Appendix E) of the EA.

12 Q. WHAT ARE POWER'S FINDINGS WITH RESPECT TO AM RADIO 13 TRANSMITTERS WITHIN 10,000 FEET OF THE CENTERLINE AND OTHER 14 TYPES OF ELECTRONIC INSTALLATIONS WITHIN 2,000 FEET OF THE 15 ROUTES?

No known AM radio transmitters were identified within the study area or within 10,000 feet of the primary alternative routes. The number of microwave towers and other electronic communication towers located within 2,000 feet of any of the primary alternative routes ranges from zero each for Routes 6, 21, and 25, to three for Routes 1, 5, 7, 10, 12, and 23.

For each primary alternative route, the number of electronic installations (including commercial FM transmitters, cellular telephone towers, microwave relay stations, or other similar electronic installations) within 2,000 feet of the route centerline are shown in Table 4-1 of the EA. General descriptions of the electronic installations and their distances from the centerlines of the routes are provided in Section 4.2.4 and in Tables 4-3 through 4-27 (Appendix C) of the EA and are shown on Figures 4-1 (Appendix E) of the EA.

Meaux Direct Testimony Page 13 694

- Q. WHAT ARE POWER'S FINDINGS WITH RESPECT TO FEDERAL AVIATION
 ADMINISTRATION (FAA) REGISTERED AIRSTRIPS OR AIRPORTS,
 PRIVATE AIRSTRIPS, AND HELIPORTS IN THE VICINITY OF THE
 CENTERLINE OF THE ROUTES?
- 5 POWER identified the Fort Stockton-Pecos County Airport (which has a runway length of A. 6 greater than 3,200 feet) as being within 20,000 feet of Routes 3, 10, 12, 18, 19, 22, and 23. There are no public FAA-registered airports or military airstrips with runways shorter than 7 3,200 feet within 10,000 feet of any of the primary alternative routes. Three private airstrips 8 9 were identified as being within 10,000 feet of Routes 2, 3, 4, 5, 6, 7, 11, 12, 14, 17, 18, 20 and 21. There are no FAA-registered heliports located within 5,000 feet of any of the 10 11 primary alternative routes. For each alternative route, the number of FAA-registered 12 airports within 20,000 feet of ROW centerline and non FAA-registered private airstrips 13 within 10,000 feet of ROW centerline are shown in Table 4-1 of the EA.

General descriptions of the FAA-registered airports and non FAA-registered private airstrips and their distances from the centerlines of the routes are provided in Section 4.2.4 and in Tables 4-3 through 4-27 (Appendix C) of the EA and are shown on Figures 4-1 (Appendix E) of the EA.

18 Q. WHAT ARE POWER'S FINDINGS WITH RESPECT TO AREAS IRRIGATED BY
19 TRAVELING IRRIGATION SYSTEMS IN THE VICINITY OF THE ROUTES?

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- A. POWER identified several fields in the study area irrigated by traveling irrigation systems.

 Although there are primary alternative route segments located near such fields, none of the
 primary alternative routes cross any known cropland or pastureland that is directly irrigated
 by traveling irrigation systems, either rolling or pivot type.
- Q. WHAT ARE POWER'S FINDINGS WITH RESPECT TO COASTAL

 MANAGEMENT ZONE IMPACTS IN THE VICINITY OF THE PROJECT?
- A. No part of any of the primary alternative routes is located within the Coastal Management Program boundary, as defined in 31 TAC §503.1.

Meaux Direct Testimony Page 14

- Q. WHAT ARE POWER'S FINDINGS WITH RESPECT TO POTENTIAL IMPACTS
 TO PARKS AND RECREATIONAL AREAS, INCLUDING THE NUMBER OF
 PARKS AND RECREATIONAL AREAS WITHIN 1,000 FEET OF THE
 CENTERLINE OF THE PRIMARY ALTERNATIVE ROUTES?
- A. POWER identified five parks or recreational areas within 1,000 feet of the centerline of several of the primary alternative routes: Roadside Park, Interstate-10 Picnic Area, Fourteen Mile Park, Interstate 10 Rest Area-West Bound, and Interstate 10 Rest Area-East Bound.

A general description of the these recreation areas and their distance from the centerline of each applicable primary route is provided in Section 4.2.5 and in Tables 4-3 through 4-27 (Appendix C) of the EA and are shown on Figure 4-1 (Appendix E) of the EA.

Q. WHAT ARE POWER'S FINDINGS WITH RESPECT TO POTENTIAL IMPACTS ON HISTORICAL AND AESTHETIC VALUES FROM THE PROJECT?

A. POWER identified one cemetery and 37 recorded archeological sites located within 1,000 feet of the primary alternative routes. These sites are listed and described with the approximate distance from the centerline for each of the primary alternative routes in Table 4-31 of the EA.

For each primary alternative route, the numbers of known or recorded historic or prehistoric archeological sites within 1,000 feet of the route centerline are shown in Table 4-1 of the EA. General descriptions of the known or recorded prehistoric archeological sites and their distances from the centerlines of the routes are provided in Section 4.3 and in Tables 4-3 through 4-27 (Appendix C) of the EA. For the protection of the archeological sites, they are not shown on the routing maps.

The study area is primarily rural with concentrations of residential and commercial development within the City of Fort Stockton. The predominant land use within the study area is undeveloped, agricultural land, or oil and gas development. Construction of the proposed 345-kV transmission line could have both temporary and permanent aesthetic effects. Temporary impacts would include views of the actual assembly and erection of the structures. Where wooded areas are cleared, the brush and wood debris could have an additional negative temporary impact on the local visual environment. Permanent impacts

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from the Project would involve the views of the structures and wires. New visual impacts would be minimized by constructing the new transmission line parallel and adjacent to existing transmission lines.

A.

Route 10 has the longest length within the foreground visual zone of Interstate, US, and State highways at approximately 47.6 miles, while Routes 1, 6, and 24 have the shortest length at approximately 4.0 miles each. The greatest length within the foreground visual zone of FM roads is associated with Route 6, approximately 12.9 miles, while Route 12 has the shortest length, approximately 1.3 miles. Routes 10, 13 and 15 have the longest length within the foreground visual zone of parks or recreational areas, approximately 4.3 miles each, while 11 of the alternative routes haves the shortest length, approximately zero miles each. The lengths of each primary alternative route within the foreground visual zone of highways, FM roads, and parks or recreational areas are presented in Section 4.2.6 and in Table 4-1 of the EA.

Q. WHAT ARE POWER'S FINDINGS WITH RESPECT TO IMPACTS ON ENVIRONMENTAL INTEGRITY FROM THE PROJECT?

The impacts on environmental integrity from the Project are summarized in Section 4.1.4.4 of the EA. Correspondence with Texas Natural Diversity Database (TXNDD), Texas Parks and Wildlife Department (TPWD), and USFWS indicate 11 animal species (five birds, two fish, one crustacean, and three snails) as federally threatened or endangered for the study area and the historical presence of 22 animal species that are federally and/or state listed, threatened, endangered, candidate, and potentially extirpated listed animal species within Pecos County, Texas (see Table 2-7 in Section 2.2.5.4 of the EA). None of the primary alternative routes has any length of ROW across known habitat of federally listed endangered or threatened species.

The impacts on environmental integrity are discussed further in Section 4.6 of the EA. The Project is anticipated to have short-term minimal impacts to soil, water, and ecological resources. If necessary, prior to construction, a field survey will be completed on the Commission approved route to determine if suitable habitat is present for any of the federally listed species.

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V. ADDITIONAL COMMISSION ROUTING CONSIDERATIONS

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- 2 HOW HAS POWER'S ANALYSIS CONSIDERED SUCH FACTORS AS (1) USE 0. 3 AND PARALLELING OF EXISTING COMPATIBLE RIGHTS-OF-WAY, (2) USE ON 4 **OF VACANT POSITIONS EXISTING** MULTIPLE **CIRCUIT** 5 TRANSMISSION LINES, AND (3) PROPERTY BOUNDARIES OR OTHER 6 NATURAL OR CULTURAL FEATURES?
- A. POWER considered the criteria that are contained in Commission Substantive Rule 25.101(b)(3)(B) while also considering the routing factors set forth in PURA § 37.056.

 Each alternative route segment was identified to parallel existing compatible ROW and property boundary lines where feasible.

There are no available vacant or open positions on any existing transmission lines located within the study area for a new 345 kV double circuit transmission line that could be utilized for the Project. Likewise, there is no available existing transmission line ROW that can be utilized for the Project. Most of the primary alternative routes parallel and are adjacent to existing transmission line ROW for a portion of their length, ranging from approximately zero miles each for Routes 15 and 20, to approximately 54.4 miles for Route 23. The lengths paralleling existing transmission line ROW for each primary alternative route are provided in Table 4-1 of the EA.

Paralleling other existing compatible ROW is also considered by the Commission to be a favorable routing criterion. POWER identified railroad and roadway ROW as potential paralleling opportunities in accordance with the provisions of Commission Substantive Rule 25.101(b)(3)(B). The primary alternative route lengths parallel to other existing compatible ROW range from approximately 1.7 miles for Route 23, to approximately 27.8 miles for Route 15. The lengths paralleling existing roadway ROW for each primary alternative route are provided in Table 4-1 of the EA.

All primary alternative routes parallel apparent property boundaries, where practical, considering other environmental and land use constraints. As described in Section 4.2.3.4 of the EA, there can be differences between property lines and parcel lines depending on how the information is organized at the county appraisal district. LCRA TSC and AEP Texas obtained updated parcel line data from the Pecos County Appraisal District and LCRA TSC grouped the parcel data where possible in an effort to identify potential

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aggregate ownership. The updated and grouped parcel data was then provided to POWER for use in identifying possible route segments for the Project. The total primary alternative route lengths parallel to apparent property boundaries ranges from approximately 2.0 miles for Route 23, to approximately 43.7 miles for Routes 20 and 21. Where there are contiguous parcels in apparent common ownership, only paralleling of the outside boundary of the parcels was tabulated. The lengths paralleling apparent property boundaries for each primary alternative route are provided in Table 4-1 of the EA.

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Typically, a more representative account for the consideration of whether new transmission line routes are parallel to existing compatible ROWs, apparent property lines, or other natural or cultural features is demonstrated with the percentage of each total route length parallel to any of these features. These percentages can be calculated for each primary alternative route by adding up the total length parallel to existing transmission lines, other existing ROW, and apparent property lines and then dividing the result by the total length of the alternative route. All of the alternative routes parallel existing linear features for some portion of their lengths. The percentage of the primary alternative routes paralleling existing linear features ranges from 57 percent for Route 18 to 86 percent for Route 24. The percentage of each of the primary alternative routes paralleling existing linear features is provided in Table 4-1 of the EA.

19 Q. HAVE AN ADEQUATE NUMBER OF ALTERNATIVE ROUTES BEEN 20 IDENTIFIED FOR THE COMMISSION TO CONDUCT A PROPER 21 EVALUATION?

22 A. Yes. Considering the distance between the Project endpoints and nature of the study area, 23 the 25 routes included in the Application provide an adequate number of geographically 24 diverse alternative routes for evaluation by the Commission. The 25 filed routes represent 25 an adequate number of reasonable, viable, geographically diverse alternative routes for the 26 Project.

27 Q. BRIEFLY DESCRIBE YOUR UNDERSTANDING OF THE COMMISSION'S 28 POLICY OF PRUDENT AVOIDANCE.

29 A. Commission Substantive Rule 25.101 defines prudent avoidance as "the limiting of exposures to electric and magnetic fields that can be avoided with reasonable investments

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